



INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

June 18, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Excavation and

Confirmation Sampling

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the soil excavation and confirmation sampling activities for Parcel D, as discussed between you and Dr. Michael Young.

Thank you

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2/5



Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

CC: Michael Young, Integrated

Mario Stavale, Boeing

Date: June 18, 1999

Re: Boeing C-6 Facility

Parcel D Site Investigation-Soil Sampling Delineation for Arsenic and Total Chromium

This memo summarizes the telephone conversation you and Dr. Young had this morning regarding the analytical results submitted to you for borings B1 through B4, B9, and B10.

One soil sample collected in boring B3 at 6 inches below ground surface indicates the presence of arsenic at a level (18 mg/kg) above the health-based remediation goal (14 mg/kg). No other compounds were detected at concentrations above their goals.

Based on the elevated arsenic concentration, our plan for delineating this hot spot is as follows.

Eight soil samples will be collected at 6 inches below ground surface. Four of the eight samples will be collected at a distance of 10 feet from boring B3, and four samples will be collected 25 feet from B3. Figure 1, attached, shows the exact positions.

Confirmation samples will be designated in the following manner.

B3C-10N-0.5

where

B3C = boring B3 confirmation

10N = distance from original B3

0.5 = depth (6 inches [0.5 feet] below ground surface)

Excavation will consist of removing the top 6 inches of soil within a radius of 25 feet from B3. The 25-foot-radius area will be divided into five excavation areas, and the soils from each area will be segregated (see Figure 2). By segregating the soils, we will be able to delineate the horizontal extent of the hot spot. Excavation Area 1 will include the center 10-foot radius, while Excavation Areas 2 through 5 will include quadrants extending from the 10-foot radius to the 25-foot radius. Soils removed from each area will be stockpiled separately. Each stockpile will be placed on, and covered by, visqueen.

Confirmation samples will be analyzed for arsenic and total chromium only. Although none of the detected concentrations of total chromium exceed the health-based remediation goal of 72 mg/kg, the confirmation samples will be analyzed for this compound per your request. These

June 18, 1999

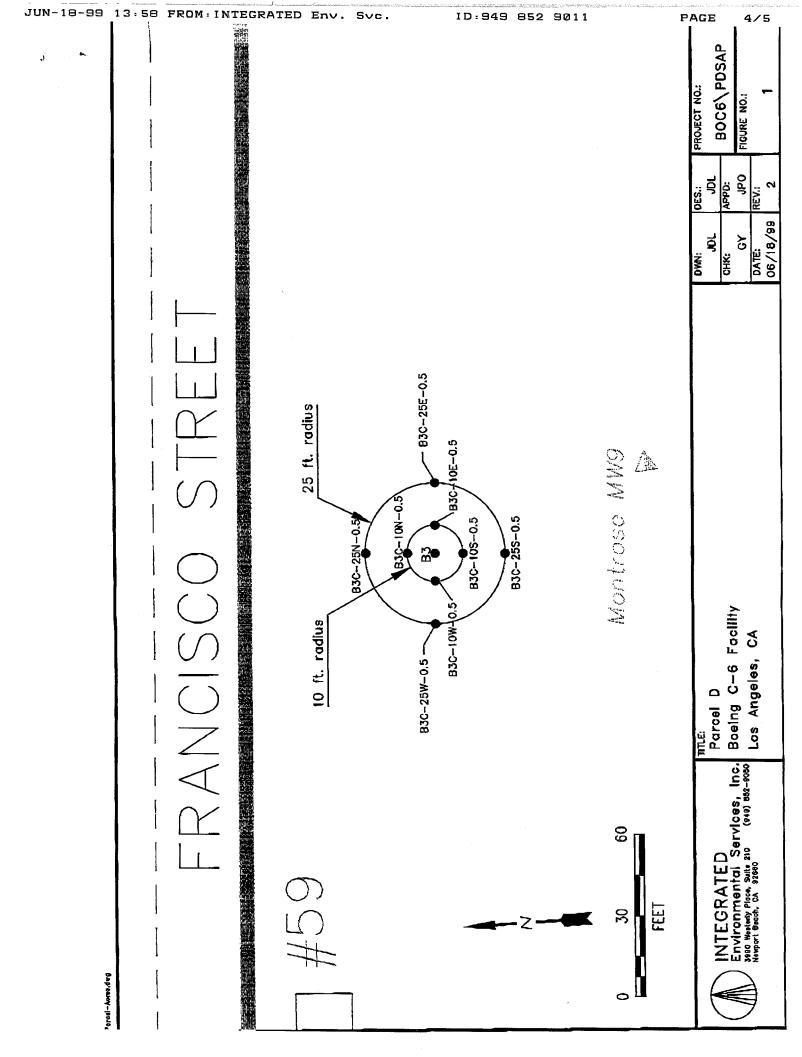
Page 2 of 2

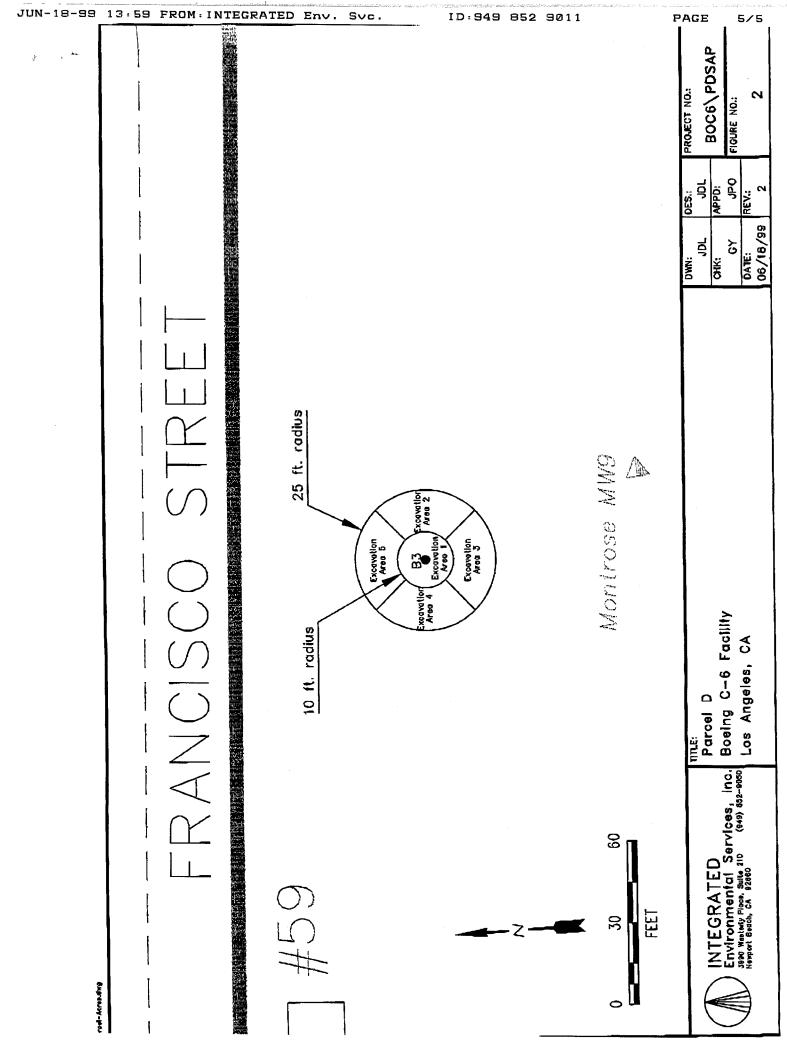
samples will be submitted to the laboratory for a 24-hour turnaround. Results should be available next Monday afternoon. A summary of findings, along with the laboratory reports, will be provided to you for review.

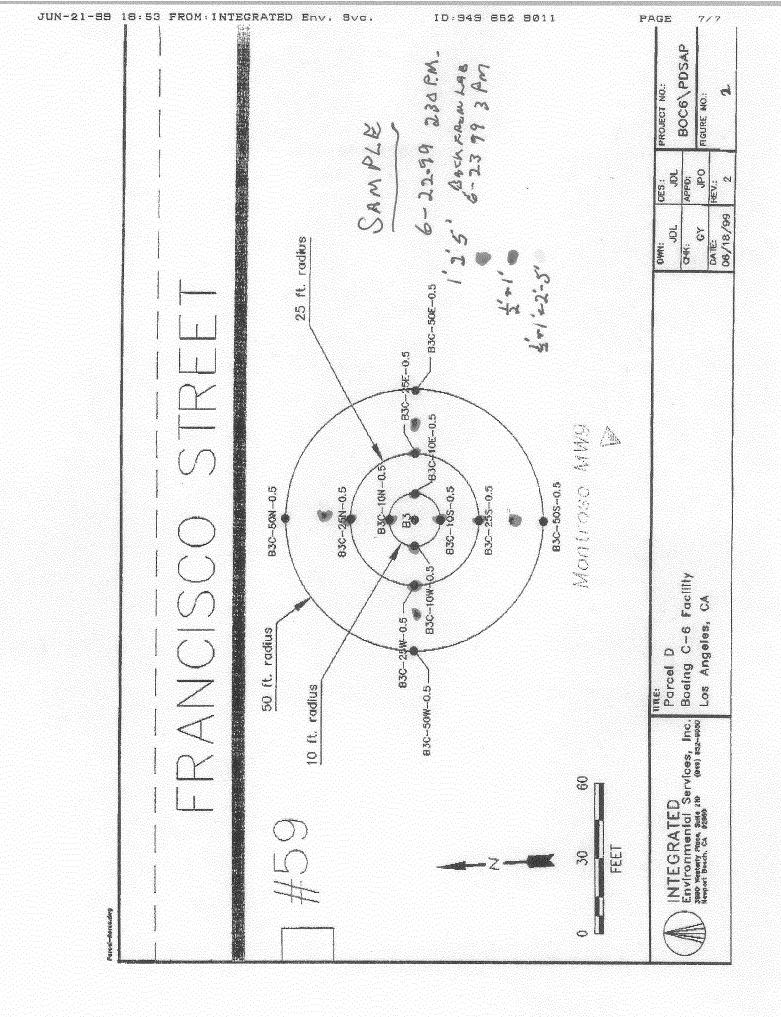
If the results of the confirmation samples indicate arsenic concentrations are below the health-based remediation goal of 14 mg/kg, soils excavated from Areas 2 through 5 will be placed back onto Parcel D. If results indicate concentrations above 14 mg/kg, the impacted soils will be transported off site for disposal. All soils excavated from Area 1 will be transported off site for disposal.

Upon the completion of excavation, construction will proceed within the footprint of the new Francisco Street. No construction will occur, however, within the excavation area or the remaining area of Parcel D until the analytical results have been reviewed and approved by the Regional Water Quality Control Board. Also, no construction will occur below a depth of 5 feet in the Francisco Street footprint until the analytical results have been reviewed and approved.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.









INTEGRATED Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

June 21, 1999

TO:

MARIO STAVALE

FAX:

(562) 627-3109

PHONE:

(562) 627-3014

COMPANY: Boeing

FROM:

JOANN ORNELAS

RE:

Parcel D Boring B3 Confirmation Sample Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

MESSAGE:

Mario.

Attached for your files are the analytical results for the delineation/confirmation samples collected from the boring B3 area. As we discussed, Integrated will be further delineating the arsenic-impacted soils. The delineation will be extended out another 25 feet and samples will be collected at 6-inches, 1-foot, 2 feet, and 5 feet below ground surface (bgs). Additionally, samples will be collected at 1-foot, 2 feet, and 5 feet bgs from the eight confirmation sample locations collected last Friday.

If you have any questions, please call me.

Thanks

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Ms. Joann Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Laboratory Reference #: IES 10960

Client Project ID: Parcel D Confirmation Client Project #:

Sampled:

06/18/99

Received: Analyzed: 06/18/99 06/21/99

06/21/99

Reported:

TOTAL ARSENIC (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
99060251 99060252 99060253 99060254 99060255 99060256 99060257	B3C-25S-0.5 B3C-25E-0.5 B3C-25N-0.5 B3C-25W-0.5 B3C-10S-0.5 B3C-10W-0.5 B3C-10N-0.5 B3C-10E-0.5	60 17 120 100 46 27 76 33
Detection Limit		1.0

Analyte reported as N.D. were not present above the stated limit of detection.

Orange Coast Analytical, Inc.

DRANGE CURS HAMPLY I.E.

7148320067 81:41 8661/17/90

Ms. Joann Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Client Project ID: Parcel D Confirmation Client Project #:

Sampled:

06/18/99

Received:

06/18/99

Analyzed:

06/21/99

Reported:

06/21/99

Laboratory Reference #: IES 10960

TOTAL CHROMIUM (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
	740 750 B F	21
99060251	B3C-25S-0.5	- -
99060252	B3C-25E-0.5	18
99060253	83C-25N-0.5	. 22
99060254	B3C-25W-0.5	. 21
	B3C-10S-0.5	20
99060255	B3C-10W-0.5	22
99060256		22
99060257	B3C-10N-0.5	· 22
99060258	B3C-10E-0.5	

			- 0.5	
Detection Limit	•			
1 M-16-15 3 H: 3L I L 11 1 ML				

Analyte reported as N.D. were not present above the stated limit of detection.

Orange Coast Analytical, Inc.

INT

DIRANGE CODAST ANALYII

81:01 6661/12/90 7148320067

4/4



INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

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7

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FAX TRANSMISSION COVER SHEET

DATE:

June 21, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY: Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Confirmation

Sampling Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the confirmation sampling results for arsenic-impacted soils around boring B3 in Parcel D. Also included is the sampling protocol for further delineation. Please review and call me in the morning.

Thank you

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Memo

To:

Augustine Anijielo, RWQCB

From: Joann P. Ornelas

CC:

Mario Stavale, Boeing

Michael Young, IESI

Date:

June 21, 1999

Re:

Parcel D Site Investigation - Boring B3 Confirmation Soil Sampling Results

In accordance with the memo dated June 18, 1999, an additional eight confirmation soil samples were collected around boring B3 to delineate the arsenic-impacted soils (see figure 1). Results of the samples indicate arsenic to be above the health-based remediation goal (HBRG) of 14 mg/kg in all eight samples. The arsenic concentrations detected ranged from 17 to 120 mg/kg. Total chromium concentrations are well below the HBRG of 97.3 mg/kg. The laboratory report for these samples is attached.

The soils within the 25-foot sample radius of boring B3 have been excavated and stockpiled as stipulated in the memo. These soils will be transported offsite to an approved disposal facility.

To further delineate the arsenic-impacted soils, Boeing will extend out an additional 25 feet (50foot radius of boring B3) for horizontal delineation. For vertical delineation, soil samples will be collected at 6 inches, 1-foot, 2 feet, and 5 feet below ground surface (bgs). Vertical delineation samples will also be collected from the eight confirmation soil sample locations within the 25foot radius. Figure 2 shows the delineation sample locations.

Because total chromium concentrations in all eight confirmation samples are well below the HBRG, total chromium is not considered a constituent of concern and, therefore, will not be analyzed in the additional delineation samples. The additional delineation samples will be analyzed for arsenic only. These samples will be submitted to the laboratory for a 24-hour turnaround. Results should be available on Wednesday afternoon. A summary of findings, along with the laboratory reports, will be provided to you for review.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the samples indication arsenic concentrations above 14 mg/kg, delineation will continue.

Due to the latest analytical results, construction activities within Parcel D have ceased. No intrusive activities have occurred within approximately 150 feet of boring B3.

June 21, 1999

Page 2 of 2

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.

Ms. Joenn Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Laboratory Reference #: IES 10960

Client Project ID: Parcel D Confirmation

Client Project #:

Sampled:

06/18/99

Received:

06/18/99

Analyzed: Reported: 06/21/99

06/21/99

TOTAL ARSENIC (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
99060251	B3C-25S-0.5	60
99060252	B3C-25E-0.5	. 17
99060253	B3C-25N- 0.5	120
99060254	B3C-25W-0.5	100
99060255	B3C-10S-0.5	46
99060258	B3C-10W-0.5	27
99060257	B3C-10N-0.5	· 76
99060258	B3C-10E-0.5	33

	4.8
Detection Limit	7.0
DESCRIPT FRITT	1.0
PATOGOTI ESTA	

Analyte reported as N.D. were not present above the stated limit of detection.

Ms. Joann Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soll,

Client Project iD: Parcel D Confirmation

Client Project #:

Sampled:

06/18/99

Received: Analyzed: 06/18/99

06/21/99

Reported

06/21/99

TOTAL CHROMFUM (EPA 6010)

Laboratory Reference #: IES 10960

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
99060251	B3C-25S-0.5	21
99060252	B3C-25E-0.5	18
99060253	B3C-25N-0.5	22
99060254	B3C-25W-0.5	. 21
99060255	B3C-10S-0.5	20
99060256	B3C-10W-0.5	22
99060257	B3C-10N-0.5	22
99060258	63C-10E-0.5	22

		·	0.5	
Detection Limit		 		

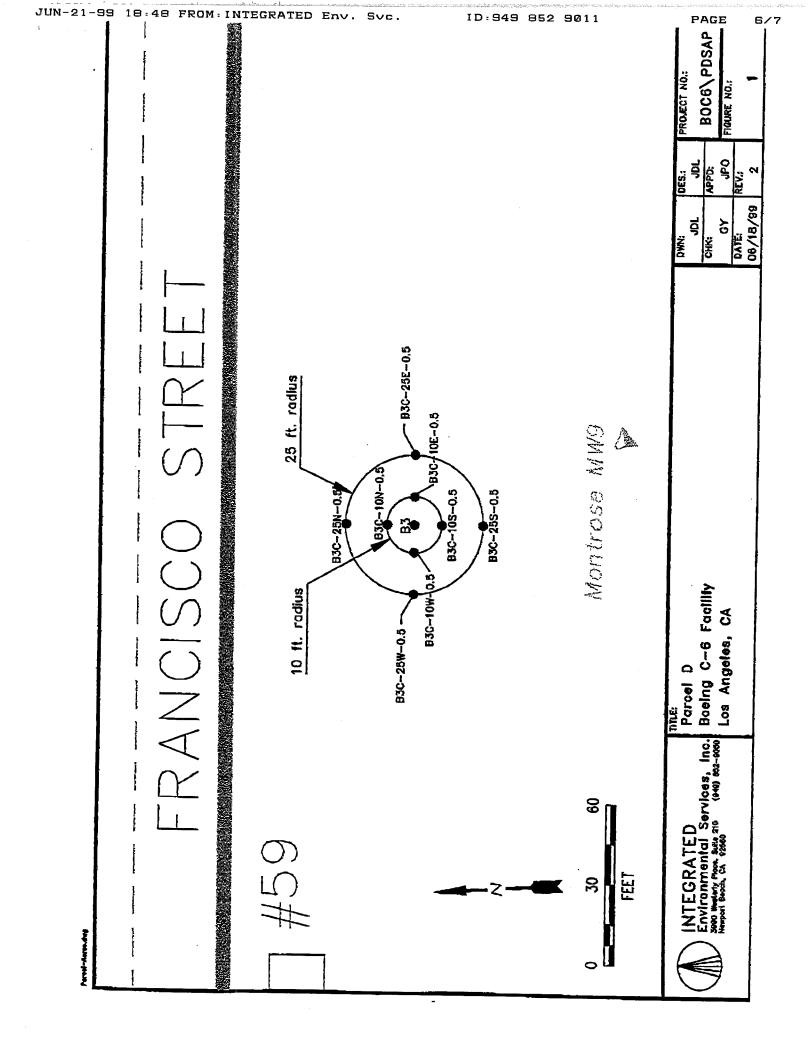
Analyte reported as N.D. were not present above the stated limit of detection.

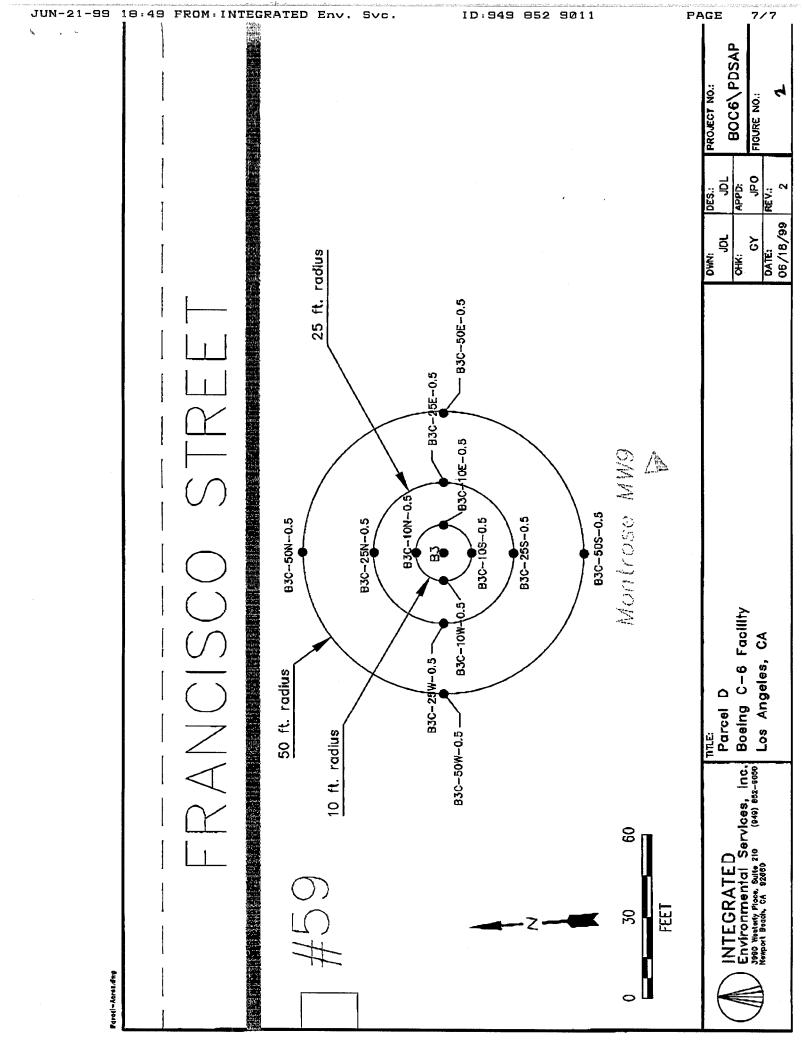
Orange Coast Analytical, Inc.

INT_

7148320067

81:41 6661/17/90







Memo

Tos

Augustine Anijielo, RWQCB

From: Joann P. Ornelas

CC

Mario Stavale, Boeing

Michael Young, IESI

Date:

June 23, 1999

Re:

Parcel D Site Investigation - Delineation Soil Sampling Results

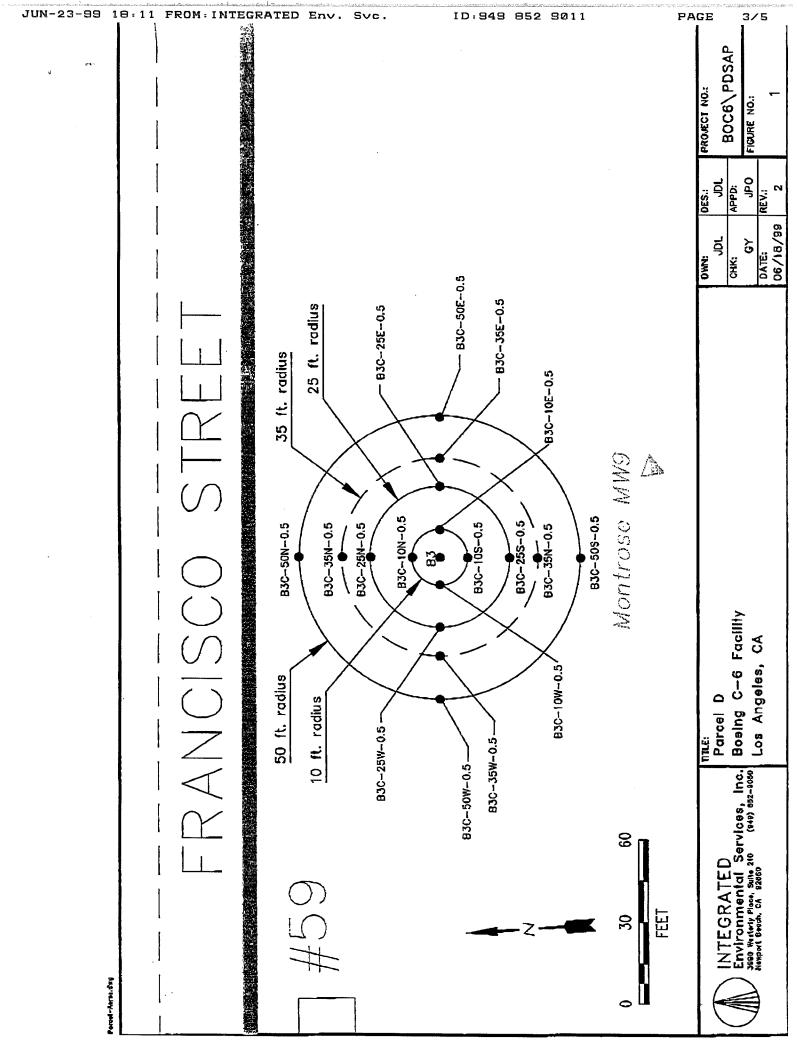
On Tuesday, June 22, 1999, forty-eight soil samples were collected to delineate the arsenicimpacted soil around boring B3 (see attached figure). Soils samples were collected at depths of 6 inches, 1-foot, 2-feet, and 5 feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in all samples collected at 6 inches and 1-foot depths. Only one sample (B2C-25S-2 at 2 feet bgs) exhibited a concentration (17 mg/kg) above the HBRG at depths below 1 foot.

Based on the findings, further delineation of the arsenic-impacted soils will be conducted. Boeing will extend out an additional 50 feet (100-foot radius of boring B3), in 25-foot increments, for horizontal delineation. For vertical delineation, soil samples will be collected at 6 inches and 1-foot bgs.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation will continue.

Construction activities within Parcel D will continue to be put on hold until delineation activities are complete.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.



Ms. Joann Omelas 3990 Westerly Pl. Suite 210 Newport Beach, CA 92680

Client Project ID: Parcel D Confirmation Client Project #:

Sample Description: Soil,

Sampled: 06/22/99 Received: 06/22/99 Analyzed: 06/23/99 Reported:

06/23/99

Laboratory Reference 机 IES 10963

TOTAL ARSENIC (EPA 6010)

ABORATORY	CLIENT	SAMPLE
SAMPLE	SAMPLE	SAMPLE RESULTS
NUMBER	NUMBER	resulis mg/kg
99060280	B3C-10N-1	
99060281	B3C-10N-2	· 3 9
99060282		5.0
99060283	83C-10N-5	4.0
99060284	B3C-10E-1	49
98060285	B3C-10E-2	5.0
99060286	B3C-10E-5	4.8
99060287	B3C-25E-1	· 42
99060288	B3C-25E-2	5.8
99060289	B3C-25E-5	4.8
	B3C-35E-0.5	21
99060290	B3C-35E-1	29
99060291	B3C-50E-0.5	9.2
99060292	B3C-50E-1	110
99060293	B3C-50E-2	5.0
99060294	B3C-50E-5	5.4
99060295	B3C-25N-1	63
99060296	B3C-25N-2	4.3
99060297	B3C-25N-5	4.5
99060298	B3C-35N-0.5	26
99060299	B3C-35N-1	18
88060300	B3C-50N-0.5	840
99060301	B3C-50N-1	44
99060302	B3C-50N-2	5.1
99060303	B3C-50N-5	4.7
etection Limit		1.0

Analyte reported as N.D. were not present above the stated limit of detection.

Ms. Joann Omelas 3990 Westerly Pl. Suite 210 Newport Beach, CA 92660

Client Project ID: Parcel D Confirmation Client Project #

Sample Description: Soil.

Sampled: Received: 06/22/99 06/22/99

Laboratory Reference #: IES 10963

Analyzed: 06/23/99 Reported: 06/23/99

TOTAL ARSENIC (EPA 6010)

-		•
LABORATORY	CLIENT	SAMPLE
SAMPLE	SAMPLE	RESULTS
NUMBER	NUMBER	mg/kg
99060304	B3C-10S-1	40
99060305	B3C-10S-2	6.9
99065306	B3C-10S-5	5.2
99060307	B3C-10W-1	. 45
99060308	B3C-10W-2	12
99060309	B3C-10W-5	4.4
99060310	B3C-25S-1	110
99060311	B3C-25S-2	17 <- 2ft
99060312	B3C-25S-5	5.3
99060313	B3C-35S-0.5	54
99060314	B3C-35S-1	. 80
99060315	B3C-50S-0.5	79
99060316	B3C-50S-1	10
99060317	B3C-50S-2	9.6
99060318	B3C-50S-5	5.2
99060319	B3C-25W-1	58
99060320	B3C-25W-2	6.3
99060321	B3C-25W-5	4.7
99060322	B3C-50W-0.5	76
99060323	B3C-50W-1	6 5
99060324	B3C-50W-2	3.6
99060325	B3C-50W-5	4.5
99060326	B3C-35W-0.5	- 61
99060327	B3C-35W-1	130
Detection Limit		1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT



Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

CC: Mario Stavale, Boeing

Michael Young, IESI

Date: June 25, 1999

Re: Parcel D Site Investigation – Soil Sampling Results

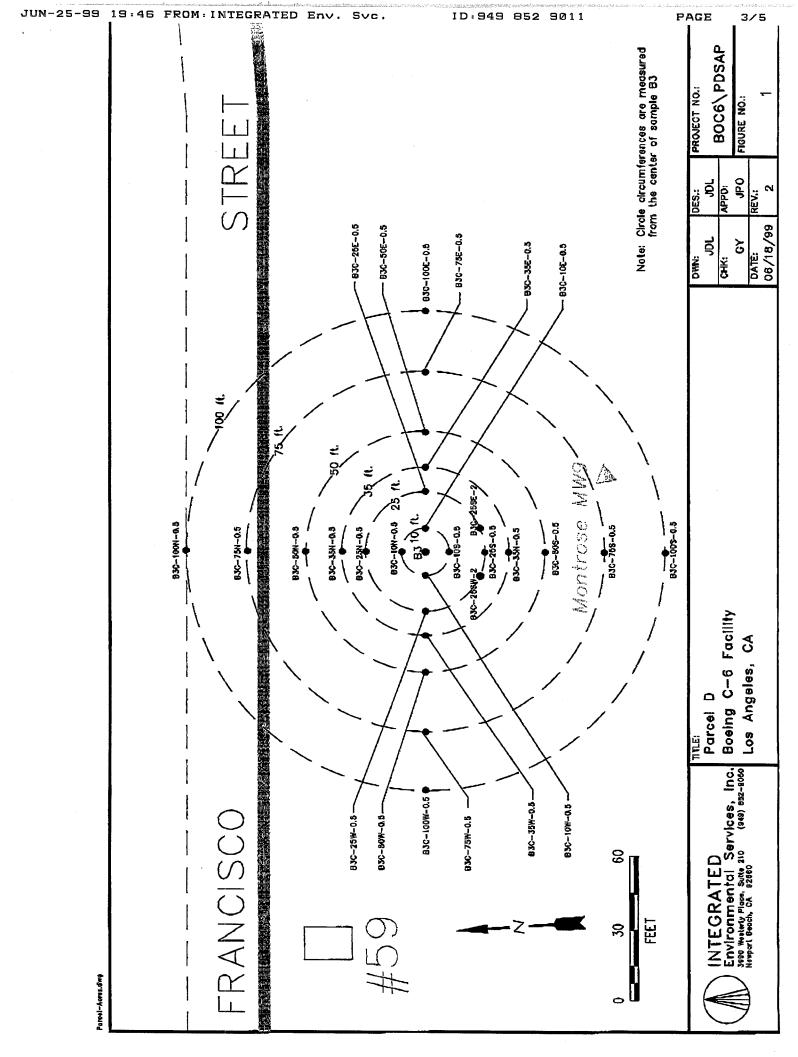
On Thursday, June 24, 1999, twenty-nine soil samples were collected to delineate the arsenic-impacted soil around boring B3 (see attached figure). Soils samples were collected at depths of 6 inches, 1-foot, and 2-feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in 11 samples collected at 6 inches and 1-foot depths. Two samples (B3C-75S-2 and B3C-100S at 2 feet bgs) exhibited a concentration (51 and 18 mg/kg, respectively) above the HBRG at depths below 1 foot. The laboratory report for these analyses is attached.

Based on the findings, it appears that arsenic has been delineated to the north at approximately 100 feet from boring B3. Further delineation of the arsenic-impacted soils will be conducted to the east, west, and south. Boeing will extend out an additional 50 feet (150-foot radius of boring B3), in 25-foot increments, for horizontal delineation of the east, west, and south. For vertical delineation, soil samples will be collected at 6 inches, 1-foot, and 2 feet bgs. Additionally, at sample locations B3C-75S and B3C-100S, samples will be collected at 3 feet bgs.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation will continue.

Construction activities within Parcel D will continue to be put on hold until delineation activities are complete.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.



Ms. Joann Omelas 3990 Westerly Pl. Suite 210 Newport Beach, CA 92660

Client Project ID: Parcel D Confirmation Client Project #:

Sample Description: Soil,

Sampled: Received: 06/24/99 08/24/99

Laboratory Reference # IES 10970

· Analyzed: Reported: 06/25/99 06/25/99

TOTAL ARSENIC (EPA 6010)

LABORATORY	CLIENT	SAMPLE
Sample	Sample	RESULTS
NUMBER	NUMBER	. mg/kg
99060346	B3C-75N-0.5	58
99060347	B3C-75N-1	74
99050348	B3C-75N-2	11
99060349	B3C-35N-2	4.5
99060350	B3C-35N-3	4.4
99060351	B3C-75E-0.5	57
99060352	B3C-75E-1	110
99060353	B3C-75E-2	11
99060354	B3C-100W-0.5	36
99060355	83C-100W-1	6.8
99060356	B3C-100W-2	4.2
99060357	B3C-100N-0.5	5.1
99060358	B3C-100N-1	4.0
99060359	B3C-100N-2	5.6
99060360	B3C-100S-0,5	. 1 50

Detection Limit		
ECCOROLI CITIE	-	. 40
		1.0

Analyte reported as N.D. were not present above the stated limit of detection.

MTw.

Ms. Joann Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Client Project ID: Parcel D Confirmation Client Project #:

Sampled:

06/24/99

Received:

06/24/99

Analyzed:

06/25/99

Reported:

06/25/99

Laboratory Reference #: IES 10970

TOTAL ARSENIC (EPA 6010)

LABORATORY	CLIENT	SAMPLE
SAMPLE	SAMPLE	RESULTS
NUMBER	NUMBER .	mg/kg
nnonosi	B3C-100S-1	55
99060361		
99060362	B3C-100S-2	14
99060363	B3C-75S-0.5	56
99060364	B3C-75S-1	65
99060365	B3C-75S-2	<u>51</u> oft
99060366	B3C-25SW-2	6.5
99060367	B3C-25SE-2	6.6
99060368	B3C-75W-0.5	41
99060369	B3C-75W-1	5.0
99060370	B3C-75W-2	5.2
99060371	B3C-100E-0.5	36
99060372	B3C-100E-1	5.0
99060373	B3C-100E-2	_ 18 a(;
99060374	B3C-25S-3	3.2

Detection Limit

1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT www.

Orange Coast Analytical, Inc.

/ 14007CQ+T/

AT:97 FEET/97/98





INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone:

(949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

June 25, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Delineation Sampling

NUMBER OF PAGES (INCLUDING COVER SHEET):

→ cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the delineation sampling results for arsenic-impacted soils around boring B3 in Parcel D. These samples were collected on Thursday, June 24, 1999. Also included is the sampling protocol for further delineation.

Please call me if you have questions.

Thank you

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Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

cc: Mario Stavale, Boeing

Michael Young, IESI

Date: June 25, 1999

Re: Parcel D Site Investigation - Soil Sampling Results

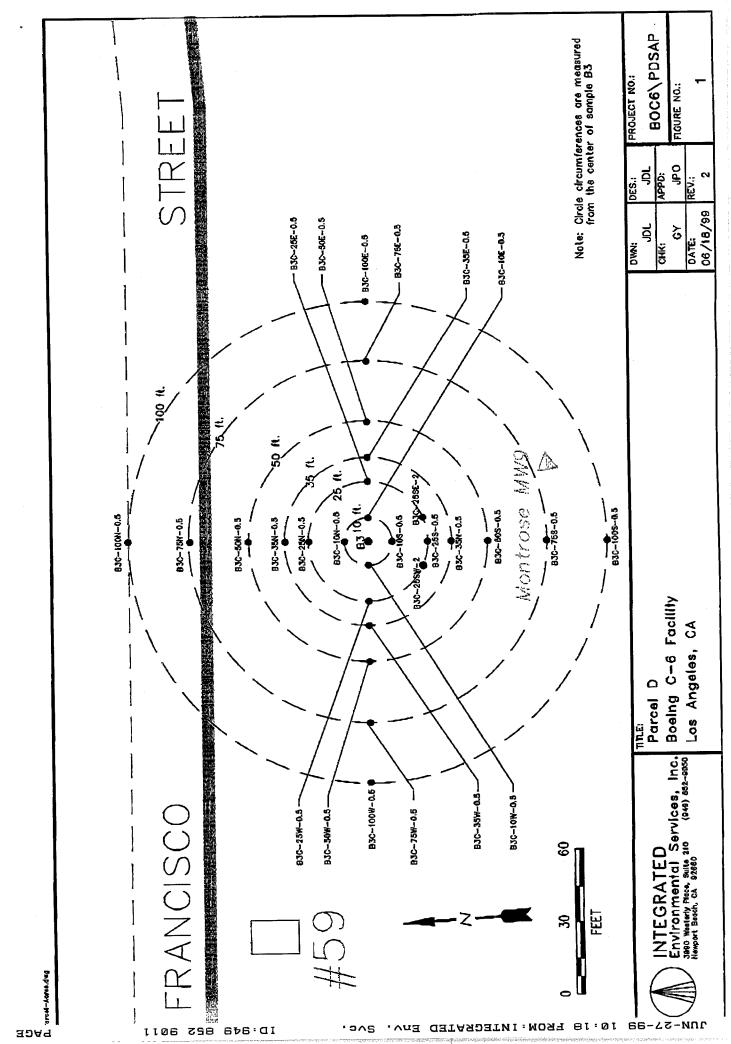
On Thursday, June 24, 1999, twenty-nine soil samples were collected to delineate the arsenic-impacted soil around boring B3 (see attached figure). Soils samples were collected at depths of 6 inches, 1-foot, and 2-feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in 11 samples collected at 6 inches and 1-foot depths. Two samples (B3C-75S-2 and B3C-100S at 2 feet bgs) exhibited a concentration (51 and 18 mg/kg, respectively) above the HBRG at depths below 1 foot. The laboratory report for these analyses is attached.

Based on the findings, it appears that arsenic has been delineated to the north at approximately 100 feet from boring B3. Further delineation of the arsenic-impacted soils will be conducted to the east, west, and south. Boeing will extend out an additional 50 feet (150-foot radius of boring B3), in 25-foot increments, for horizontal delineation of the east, west, and south. For vertical delineation, soil samples will be collected at 6 inches, 1-foot, and 2 feet bgs. Additionally, at sample locations B3C-75S and B3C-100S, samples will be collected at 3 feet bgs.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation will continue.

Construction activities within Parcel D will continue to be put on hold until delineation activities are complete.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.



Ms. Joann Omelas

3990 Westerry Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Laboratory Reference # IES 10970

Client Project ID: Parcel D Confirmation

Client Project #

Sampled:

06/24/99

Received:

06/24/99

· Analyzed:

Reported:

06/25/99 06/25/99

TOTAL ARSENIC (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
99060346	B3C-75N-0.5	. 58
99060347	B3C-75N-1	74
99060348	B3C-75N-2	. 11
99060349	B3C-35N-2	4.5
99060350	B3C-35N-3	4.4
99060351	B3C-75E-0.5	57
99060352	B3C-75E-1	110
99060353	B3C-75E-2	. 11
99060354	B3C-100VV-0.5	36
99060355	83C-100W-1	6.8
99060356	B3C-100W-2	4 <u>.2</u>
99060357	B3C-100N-0.5	. 5,1
99060358	B3C-100N-1	4.0
99060359	B3C-100N-2	5.6
99060360	B3C-100S-0,5	150

Detection Limit	•	1.0	
	•	1	

Analyte reported as N.D. were not present above the stated limit of detection.

INT www.

Ms. Joann Omeias

99060372

99060373

99060374

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Client Project ID: Percel D Confirmation

Client Project #:

Sampled:

06/24/99

Received:

06/24/99

Analyzed:

06/25/99

Reported:

06/25/99

5.0

TOTAL ARSENIC (EPA 6010)

Laboratory Reference # IES 10970

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg	
99060361	B3C-100S-1	55	
99060362	B3C-100S-2	14	
99060363	B3C-75S-0.5	56	
99060364	B3C-75S-1	65	
99060365	B3C-75S-2	<u>51</u> 2ft	
99060366	B3C-25SW-2	6.5	
99060387	B3C-25SE-2	6.6	
99060368	B3C-75W-0.5	41	
99060369	B3C-75W-1	6.0	
99060370	B3C-75W-2	5.2	
99060371	B3C-100E-0.5	36	

B3C-100E-1

B3C-100E-2

B3C-25S-3

Detection Limit		
DESCUON LUMB		1.0
_		1.9

Analyte reported as N.D. were not present above the stated limit of detection.

INT www



INTEGRATED Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

June 29, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Delineation Sampling

Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the delineation sampling results for arsenic-impacted soils around boring B3 in Parcel D. These samples were collected on Monday, June 28, 1999. Also included is the sampling protocol for further delineation to the west.

Please call me if you have questions.

Thank you

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Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

CC: Mario Stavale, Boeing

Michael Young, IESI

Date: June 29, 1999

Re: Parcel D Site Investigation - Soil Sampling Results

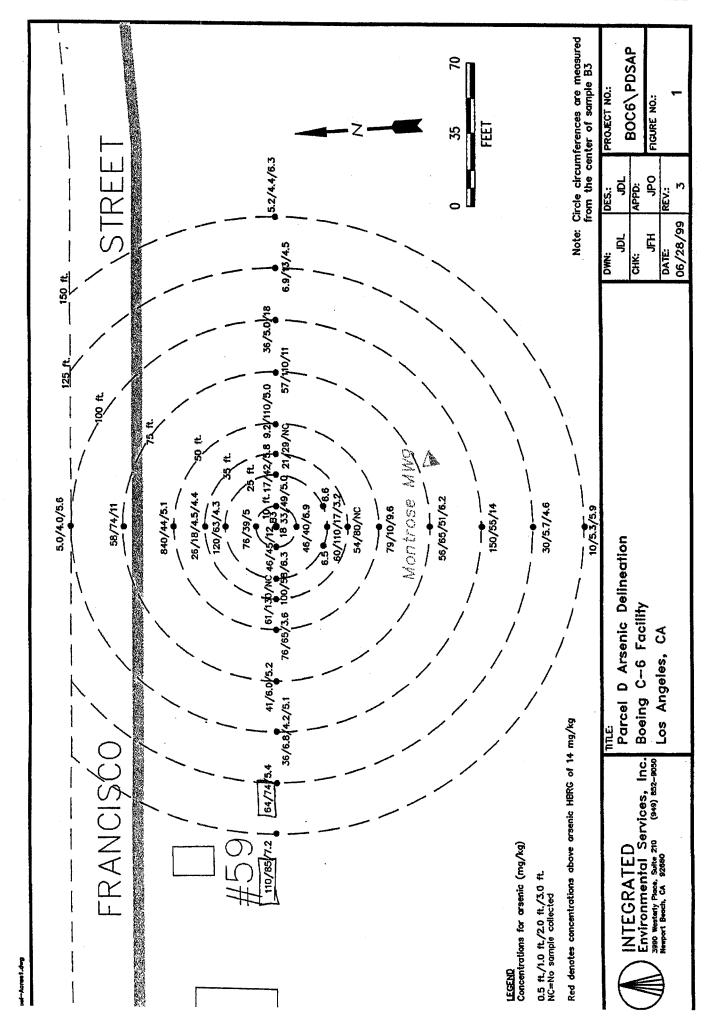
On Monday, June 28, 1999, twenty soil samples were collected to delineate the arsenic-impacted soil around boring B3 (see attached figure). Soils samples were collected at depths of 6 inches, 1-foot, and 2-feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in 5 samples collected at 6 inches and 1-foot depths. No samples collected below 1-foot bgs exhibit concentrations above the HBRG. The laboratory report for these analyses is attached.

Based on the findings, it appears that arsenic has been delineated to the east and south, as well as to the north (see memo dated June 25, 1999). To the east, elevated arsenic concentrations extend between 100 and 125 feet from boring B3. To the south, elevated arsenic concentrations extend between 125 and 150 feet from B3. Further delineation of the arsenic-impacted soils will be conducted to the west. Boeing will extend out an additional 50 feet (200-feet west of boring B3), in 25-foot increments, for horizontal delineation of the west. For vertical delineation, soil samples will be collected at 6 inches, 1-foot, and 2 feet bgs.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation will continue.

Construction activities within Parcel D will continue to be put on hold until delineation activities are complete.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.



Ms. Joann Ornelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Laboratory Reference #: IES 10976

Client Project ID: Parcel D Confirmation

Client Project #:

Sampled:

06/28/99

Received: Analyzed: 06/28/99 06/29/99

Reported:

06/29/99

TOTAL ARSENIC (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER		SAMPLE RESULTS mg/kg
00060000	DAG 405114 0 5	•	
99060386	B3C-125W-0.5		64
99060387	B3C-125W-1	3	74
99060388	B3C-125W-2	. 2.	5.4
99060389	B3C-150W-0.5		110
99060390	B3C-150W-1		85
99060391	B3C-150W-2		7,2
99060392	B3C-125S-0.5	•	30
99060393	B3C-125S-1		5.7
99060394	B3C-125S-2		4.6
99060395	B3C-150S-0.5		10
99060396	B3C-150S-1	• .	5.3
99060397	B3C-150S-2	•	5.9
99060398	B3C-125E-0.5		6. 9
99060399	B3C-125E-1		13
99060400	B3C-125E-2		4.5
99060401	B3C-150E-0.5		5.2
99060402	B3C-150E-0.3	•	5.2 4.4
99060403		•	
99060404	B3C-150E-2		6.3
	B3C-100E-3	•	5.1
99060405	B3C-75S-3	• • •	6.2

	•	•
Detection Limit		And the second s
Detection Limit	•	4 M
POTONIOII FIIIII		7 13
	*	1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT___



INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

July 1, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Delineation Sampling

Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the delineation sampling results for arsenic-impacted soils west boring B3 in Parcel D. These samples were collected on Wednesday, June 30, 1999. Also included is the sampling protocol for further delineation to the west.

Please call me if you have questions.

Thank you

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INTEGRATED ENVIRONMENTAL SERVICES, INC.

Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

Mario Stavale, Boeing

Michael Young, IESI

Date: July 1, 1999

Re: Parcel D Site Investigation - Soil Sampling Results

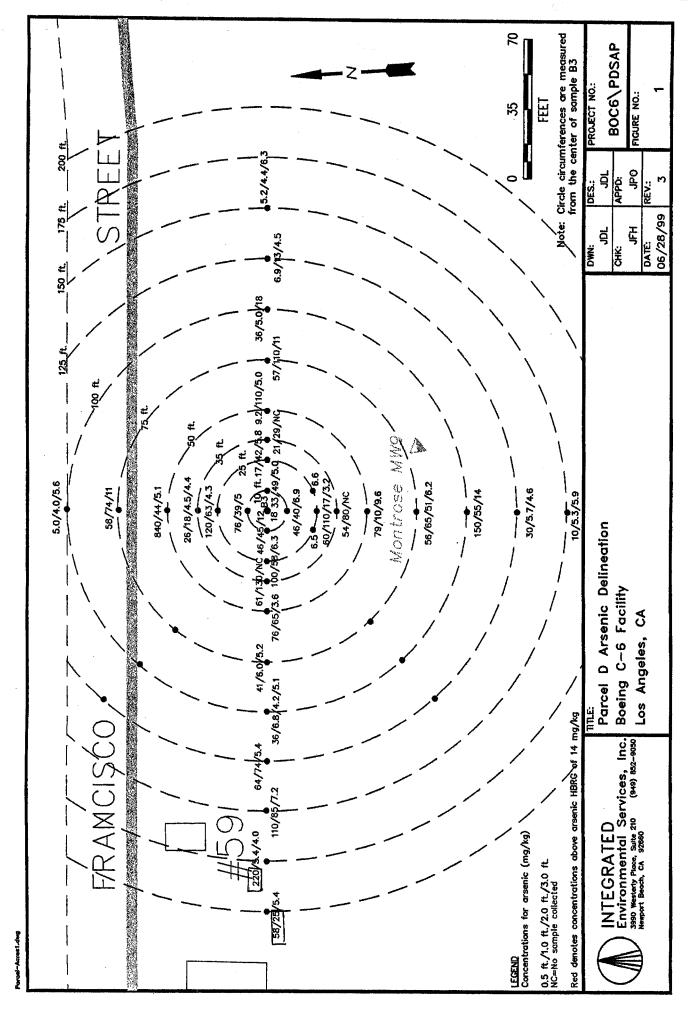
On Wednesday, June 30, 1999, six additional soil samples were collected to delineate the arsenic-impacted soil west of boring B3 (see attached figure). Soils samples were collected 175 and 200 feet west of boring B3 at depths of 6 inches, 1-foot, and 2-feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in 2 samples collected at 6 inches bgs and one sample collected at 1-foot btgs. No samples collected below 1-foot bgs exhibit concentrations above the HBRG. The laboratory report for these analyses is attached.

Based on the findings, further delineation of the arsenic-impacted soils will be conducted to the west. Boeing will extend out an additional 50 feet (250-feet west of boring B3), in 26-foot increments, for horizontal delineation of the west. For vertical delineation, soil samples will be collected at 6 inches, 1-foot, and 2 feet bgs.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation will continue.

Construction activities within Parcel D will continue to be put on hold until delineation activities are complete.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.



Integrated Environmental Services

Laboratory Reference # IES 10980

Ms. Joann Omelas 3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Client Project ID: Parcel D Confirmation Client Project #:

Sample Description: Soil,

Sampled: Received: 06/30/99

Received: 06/30/99 Analyzed: 07/01/99 Reported: 07/01/99

TOTAL ARSENIC (EPA 6010)

LABORATORY CLIENT SAMPLE SAMPLE NUMBER NUMBER	SAMPLE RESULTS mg/kg
	• •
99060443 B3C-200W-0.5	· 58
99060444 B3C-200W-1	25
99060445 B3C-200W-2	7.4
99060446 B3C-175W-0.5	220
99050447 B3C-175W-1	- 5.4
99060448 B3C-175W-2	4.0

Detection Limit		1.0	

Analyte reported as N.D. were not present above the stated limit of detection.

INT___

Orange Coast Analytical, inc.



INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

July 7, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Delineation Sampling

Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the delineation sampling results for arsenic-impacted soils west boring B3 in Parcel D. These samples were collected on Friday, July 2, 1999. Also included is the sampling protocol for further delineation to the west.

Please call me if you have questions.

Thank you

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Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Ornelas

cc: Mario Stavale, Boeing

Michael Young, IESI

Date: July 7, 1999

Re: Parcel D Site Investigation – Soil Sampling Results

On Friday, July 2, 1999, six additional soil samples were collected to delineate the arsenic-impacted soil west of boring B3. Soils samples were collected 225 and 250 feet west of boring B3 at depths of 6 inches, 1-foot, and 2-feet below ground surface (bgs). Analytical results indicate arsenic to be present above the health-based remediation goal (HBRG) of 14 mg/kg in 2 samples collected at 6 inches bgs (56 and 46 mg/kg). No samples collected at or below 1-foot bgs exhibit concentrations above the HBRG. The laboratory report for these analyses is attached.

Based on the findings, further delineation of the arsenic-impacted soils will be conducted to the west. Boeing will extend out an additional 50 feet (300-feet west of boring B3), in 25-foot increments, for horizontal delineation of the west. For vertical delineation, soil samples will be collected at 6 inches and 1-foot bgs. At this time, no samples will be collected 2 feet bgs because analytical results for samples collected at 225 and 250 feet indicate that arsenic is confined to the upper 6 inches.

If the results of the delineation samples indicate that arsenic concentrations are below the HBRG of 14 mg/kg, no further delineation samples will be collected and soils within the sampling radius will be excavated and transported off site for disposal. If the results of the sample indicate arsenic concentrations above 14 mg/kg, delineation (horizontal and vertical) will continue.

Construction activities within Parcel D have been placed on hold until delineation activities are complete. Also, an excavation plan is being prepared to address the arsenic-impacted soils. This plan will be submitted to the Board for review and approval.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.

Thank you for your assistance.

Integrated Environmental Services
 Ms. Joann Omelas
 3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Client Project ID: Parcel D Confirmation Client Project #:

Sample Description: Soil,

Sampled: Received: 07/02/99 07/02/99

Laboratory Reference #: IES 10989

Analyzed: 07/07/99 Reported: 07/07/99

TOTAL ARSENIC (EPA 6010)

LABORATORY SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE RESULTS mg/kg
99070060 : 99070061	B3C-225W-0.5	. 56
99070062 99070063 99070064 99070065	B3C-225W-1 B3C-225W-2 B3C-250W-0.5 B3C-250W-1 B3C-250W-2	11 6.3 46 7.3 .4.2

Detection Limit	
remain Till	1 0
	1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT__

Orange Coast Analytical, Inc.



INTEGRATED Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

Fax:

(949) 852-9011

FAX TRANSMISSION COVER SHEET

DATE:

July 8, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY:

Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Delineation Sampling

3

Results

NUMBER OF PAGES (INCLUDING COVER SHEET):

cc: Mario Stavale, Boeing (562) 627-3109

MESSAGE:

Augustine,

The attached memo summarizes the delineation sampling results for arsenic-impacted soils west boring B3 in Parcel D. These samples were collected on Wednesday, July 7, 1999. Based on these results, no further delineation is required for arsenic.

Please call me if you have questions.

Thank you

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Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas 976

Mario Stavale, Boeing

Michael Young, IESI

Date: July 8, 1999

Re Parcel D Site Investigation - Soil Sampling Results

On Wednesday, July 7, 1999, four additional soil samples were collected to delineate the arsenic-impacted soil west of boring B3. Soils samples were collected 275 and 300 feet west of boring B3 at depths of 6 inches and 1-foot below ground surface (bgs). No samples were collected below 1-foot bgs because analytical results for samples collected at 225 and 250 feet indicate that arsenic is confined to the upper 6 inches (refer to memo dated July 7, 1999).

Analytical results for all four delineation samples indicate arsenic to be present <u>below</u> the health-based remediation goal (HBRG) of 14 mg/kg. The laboratory report for these analyses is attached. Based on the findings, no further delineation of the arsenic-impacted soils will be conducted.

The excavation plan to address the arsenic-impacted soil will be presented to you tomorrow during our 10:00 am meeting.

Please call me at (949) 852-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.

Thank you for your assistance.

3/3

Integrated Environmental Services

Ms. Joann Omelas

3990 Westerly Pl. Suite 210

Newport Beach, CA 92660

Sample Description: Soil,

Client Project ID: Parcel D Confirmation

Client Project #:

Sampled:

07/07/99

Received: Analyzed: 07/07/99 07/08/99

Reported:

07/08/99

TOTAL ARSENIC (EPA 6010)

Laboratory Reference #: IES 10996

LABORATORY SAMPLE NUMBER CLIENT SAMPLE NUMBER SAMPLE RESULTS mg/kg

99070098 99070099 99070100 99070101

ParD-275W-0.5 ParD-275W-1 ParD-300W-0.5 ParD-300W-1

4.8 4.3

3.8 5.6

Detection Limit

1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT__

Orange Coast Analytical, Inc.

July 14, 1999

Robert E. **Bayley** Construction, Inc.

Washington License #223-01 RO-BE-RE-B375NO Oregon License #32933 Calforne License #350564 Utah License #0000-29198-0 Hawei License #4827R Marylend License #48278 Virgnie License #48230936 Virgnie License #029109 New Jersey License #0100406702 lilinois License #55753865

Bayley Construction Proposed procedure for monitoring atmosphere in and around arsenic contaminate area (parcel 17).

As soon as Bayley Construction, was made aware of the hazard we obtained two "GILAIR 3" personal breathing air monitoring devices. These two monitors will be carried by two workers monitoring their personal breathing air throughout the remediation of the arsenic contaminated soil. Analysis & results to be forthcoming daily. Results to this date have shown "no arsenic detectable in the air."

As soon as excavation begins we will have three "AIRCON 2" stationary atmosphere monitoring devices to monitor the air around the perimeter of the work area. Analysis & results to be forthcoming daily. These three are in addition to the two monitors carried by workers.

As long as these monitors continue to show results below the action level of 5 micrograms per cubic meter of air, the operations is exempt from CFR 291926.65 (**Hazardous waste operations**). See CFR291926.65(a) (1). Should monitored air results show arsenic at action level of above the following site specific Health & Safety plan (Appendix A) would be fully implemented.

BAYLEY CONSTRUCTION,

Jim Owens/CHST

File: 98041-29



California Regional Water Quality Control Board

Los Angeles Region



320 W. 4th Street, Suite 200, Los Angeles, California 90013 Phone (213) 576-6600 FAX (213) 576-6640 Internet Address: http://www.swrcb.ca.gov/~rwqcb4



July 21, 1999

Mr. Mario Stavale, Project Manager **Boeing Realty Corporation** 4060 Lakewood Blvd., 6th Floor Long Beach, CA 90808



WASTE DISCHARGE REQUIREMENTS FOR DISCHARGE OF CONTAMINATED SOIL -BOEING REALTY CORPORATION C-6 FACILITY, 19503 S. NORMANDIE AVE., LOS ANGELES, CALIFORNIA (FILE NO. 88-57-033 (99))

Dear Mr. Stavale:

On July 16, 1999, you filed with this Regional Board a report of waste discharge to discharge up to 15,000 cubic yards of contaminated soil from the subject site to the Bradley Landfill in Sun Valley to be used as daily cover. On July 20, 1999, we received additional laboratory data for the proposed discharge.

We have reviewed the information provided, including the arsenic analytical data from 52 soil samples. We found that the arsenic concentrations in ten of these samples are higher than the 5 mg/L STLC threshold limit. Arsenic concentration of one of these samples also exceeds the 500 mg/kg TTLC threshold limit. These are hazardous waste as defined in CCR Title 22 and will not be allowed to be discharged to a Class III landfill such as the Bradley Landfill. Your application is therefore not approved.

You may resubmit your application to discharge only the portion of waste that is not hazardous. However, you must include a plan with your application describing how the hazardous waste will be segregated from the rest of the waste prior to discharge. Any hazardous waste must be legally disposed to a facility that is authorized to accept such waste. You do not need to include an application fee when you resubmit the application.

If you have any questions, please contact Dr. Wen Yang at (213) 576-6795.

Sincerely,

CC:

RODNEY H. NELSON, Chief

Rodney H. nelson

Landfill and Cleanup Unit

Joann P. Ornelas, Integrated Environmental Services, Inc.

California Environmental Protection Agency

Winston H. Hickox Secretary for Environmental Protection

California Regional Water Quality Control Board

Los Angeles Region



July 29, 1999

Mr. Mario Stavale, Project Manager Boeing Realty Corporation 4060 Lakewood Blvd., 6th Floor Long Beach, CA 90808



WASTE DISCHARGE REQUIREMENTS FOR DISCHARGE OF CONTAMINATED SOIL - BOEING REALTY CORPORATION C-6 FACILITY, 19503 S. NORMANDIE AVE., LOS ANGELES, CALIFORNIA (FILE NO. 88-57-033 (99))

Dear Mr. Stavale:

On July 16, 1999, you filed with this Regional Board a report of waste discharge to discharge up to 15,000 cubic yards of contaminated soil from the subject site to the Bradley Landfill in Sun Valley to be used as daily cover. In a letter dated July 21, 1999, we disapproved your application because a portion of the contaminated soil contained high levels of arsenic that made the waste hazardous as defined in CCR Title 22. On July 28, 1999, you resubmitted the application and informed us that all the hazardous waste had been excavated and stockpiled separately for disposal at the Kettleman Hills Landfill, which is a Class I landfill and authorized to handle hazardous wastes. The total volume of discharge was also modified to 10,000 cubic yards.

We have reviewed the information provided, including the TTLC and STLC arsenic analytical data from 41 soil samples, and have determined that the proposed discharge of non-hazardous waste meets the conditions specified in Order No. 91-93, "General Waste Discharge Requirements for Discharge of Non-Hazardous Contaminated Soils and Other Wastes in Los Angeles River and Santa Clara River Basins", adopted by this Board on July 22, 1991 (attached). This material can be discharged to any Class III landfill that accepts municipal wastes in this Region and can be used as daily cover material. Approval of soil used for daily cover is also contingent upon concurrence by the Integrated Waste Management Board and any Local Enforcement Agency.

Enclosed are Waste Discharge Requirements, comprising:

- 1. General Waste Discharge Requirements
- 2. Monitoring and Reporting Program

Please note that the Monitoring and Reporting Program requires that a report be submitted to this Board within 10 days of the completion of disposal operations, <u>ATTN: Information Technology Unit.</u> The report shall reference the above file number.

California Environmental Protection Agency

Mr. Mario Stavale Page 2

If you have any questions, please contact Dr. Wen Yang at (213) 576-6795.

Sincerely,

DENNIS A. DICKERSON

Sem. A. Sile

Executive Officer

Enclosure

cc: CIWMB

Los Angeles County Environmental Health

Ms. Joann P. Ornelas, Integrated Environmental Services, Inc

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM for DISCHARGE OF NON-HAZARDOUS CONTAMINATED SOILS AND OTHER WASTE

BOEING REALTY CORPORATION C-6 FACILITY, 19503 S. NORMANDIE AVE., LOS ANGELES, CALIFORNIA (FILE NO. 88-57-033 (99))

I. Reporting

- A. The discharger shall implement this monitoring and reporting program on the date of issuance of the Waste Discharge Requirements.
- B. The monitoring report shall be submitted within ten (10) days following the completion of disposal operations at the final point of disposal.
- C. All analytical samples obtained for this program shall be grab samples.
- D. In the event that hazardous or other unacceptable wastes are detected during disposal, the type, source, and final disposition of these wastes shall be reported.

II. Waste Disposal Reporting

- A. A report containing the following information shall be filed with this Regional Board after completion of all waste disposal:
 - 1. A tabular list of the estimated average quantities (in cubic yards) and types of materials deposited.
 - 2. Where the material was deposited (landfill name).
 - 3. A certification that all wastes deposited were in compliance with the Regional Board's requirements and that no wastes have been deposited outside of the boundaries of the site as specified in the Regional Board's requirements.
 - 4. In those cases where approval is given for the partial disposal of contaminated soils or other wastes, the ultimate disposal point of the remaining contaminated soils or other wastes must be reported, including the quantity of material disposed of at the different location.

- B. Monitoring reports shall be signed by:
 - 1. In case of corporation, by a principal executive officer at least of the level of vicepresident or his duly authorized representative, if such representative is responsible for the overall operation of discharge;
 - 2. In the case of a partnership, by a general partner;
 - 3. In case of a sole proprietorship, by the proprietor;
 - 4. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- C. The report shall contain the following completed declaration:

"I declare under penalty of perjury the	nat the foregoing is tru	ue and correct.
Executed on the day of	at	
	Site and the site of the sit	(Signature
		(Title)"

D. The discharger shall mail a copy of the monitoring report to the following:

California Regional Water Quality Control Board Los Angeles Region 320 W. 4th Street, Suite 200 Los Angeles, CA 90013

Attn: Information Technology Unit

Ordered by: _

DENNIS A. DICKERSON

Executive Officer

Date: July 29, 1999

State of California CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 91-93

GENERAL WASTE DISCHARGE REQUIREMENTS FOR

DISCHARGE OF NON-HAZARDOUS CONTAMINATED SOILS AND OTHER WASTES IN LOS ANGELES RIVER AND SANTA CLARA RIVER BASINS (File No. 88-57)

The California Regional Water Quality Control Board, Los Angeles Region finds:

- 1. The California Water Code requires that any person discharging wastes or proposing to discharge waste which could affect the quality of the waters of the state shall file a Report of Waste Discharge with the Regional Board. The Regional Board then shall prescribe requirements as to the nature of the proposed or existing discharge.
- Soils contaminated with moderate concentrations of petroleum hydrocarbons, heavy metals and other special wastes are considered to be wastes whose discharge could affect the quality of the waters of the State.
- Land disposal of these wastes to properly engineered and managed Class III Waste Management Units (Landfills) is proving to be an efficient and economical means of mitigating the effects of such contaminated waste. The threat to waters of the State is thereby eliminated or reduced to non-significant levels.
- Each month this Board receives a large number of requests for the disposal of soils contaminated with hydrocarbons and other waste. For each such request, staff has to of the the concentration significant determine contaminants/pollutants in the waste, the regulatory limits, if any, for the contaminants/pollutants, and the potential impact on the waters of the State from the disposal of the waste. Such requests are anticipated to continue and far exceed the capacity of staff to review and bring to the Board for consideration of individual waste discharge requirements in a timely manner. These circumstances create the need for an expedited system for processing the numerous requests for disposal of these moderately contaminated wastes.

- The adoption of general waste discharge requirements for the disposal of these non-hazardous contaminated soils and other similar wastes would: a) simplify the application process for dischargers, b) allow more efficient use of Regional Board staff time; and c) reduce Regional Board time by enabling the Executive Officer to notify the discharger of the applicability of the General Waste Discharge Requirements.
- 6. These general waste discharge requirements for the disposal of non-hazardous contaminated soils and other similar waste up to 100,000 cubic yards for durations not to exceed 90 days under direction of the Executive Officer would benefit the public, staff, and the Board by accelerating the review process without loss of regulatory jurisdiction and oversight.
- 7. The Board adopted revised Water Quality Control Plans for the Santa Clara River and Los Angeles River Basins on October 22, 1990 and June 3, 1991, respectively. These Water Quality Control Plans contain water quality objectives for ground water for all Hydrologic Subareas within the Region. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plans.
- 8. Beneficial uses of ground water in the Los Angeles Region include municipal and domestic supply, agricultural supply, industrial process supply, and ground water recharge. Beneficial uses for individual Hydrologic Subareas are specified in the Water Quality Control Plans.
- The Class III Landfill disposal is a <u>one time</u>, short term disposal, and is not anticipated to require in excess of 90 days to complete at which time these requirements will expire.
- 10. The issuance of Waste Discharge Requirements for the discharges subject to these general requirements is exempt from the provisions of Chapter 3, (commencing with Section 21100) of Division 13, of the Public Resources Code pursuant to one or more of the following provisions:

- (a) The lead agency has prepared an Environmental Impact Report or a negative declaration based on findings pursuant to California Code of Regulations, Title 14, Chapter 3, Section 15070 which show that there will be no significant impact on water quality; or
- (b) The project would affect a minor alteration to the condition of land, and is exempt in accordance with Title 14, Chapter 3, Section 15304, California Code of Regulations.
- 11. These general waste discharge requirements are not intended to alter or supersede any existing restrictions or working arrangements relating to cleanup cases with local governmental agencies.

The Board has notified interested agencies and persons of its intent to adopt general waste discharge requirements for disposal of hydrocarbon contaminated soils and other similar wastes and has provides them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the tentative requirements.

IT IS HEREBY ORDERED THAT:

A. APPLICABILITY

- This Order shall serve as General Waste Discharge Requirements for the discharge of non-hazardous contaminated soil and other similar wastes to properly engineered and managed Waste Management Units.
- 2. Upon receipt of a Report Waste Discharge describing such discharge, the Executive Officer shall determine if such discharge, a) involves 100,000 cubic yards or less of hydrocarbon contaminated soil and/or other similar waste, b) involves contaminated soils and/or other similar wastes at acceptable levels as determined by the Executive Officer, but total petroleum hydrocarbons (TPH) shall not exceed an average concentration of 1,000 mg/kg, c) will be completed within 90 days, and d) is covered by adequate soil characterization of the nature and extent of the soil contamination, and e) the threat to ground water from such soil and/or other waste discharge is reduced to non-significant levels.

In the event the Executive Officer so finds, he shall notify the applicant (hereinafter called the Discharger) in writing that the proposed discharge is subject to this Order.

3. Notwithstanding the above provisions, individual cases may be brought to the Board for adoption of waste discharge requirements when deemed appropriate by the Executive Officer.

B. WASTE DISCHARGE REQUIREMENTS

- No condition of pollution or nuisance shall be caused by the handling of the wastes or from any excavation operation conducted in association with this waste disposal operation.
- 2. Odors from the handling of these wastes shall not be perceivable beyond the limits of the property owned or controlled by the discharger.
- 3. All required state and local permits and/or variances shall be obtained by the discharger prior to commencing the disposal operations.
- 4. The discharge and disposal of waste shall be in conformance with Title 23, Division 3, Chapter 15, California Code of Regulations "Discharge of Waste to Land".
- 5. Wastes discharged shall be limited to material obtained from one site only; no other wastes shall be imported and/or commingled with those wastes.
- Mastes may be discharged at a classified Waste Management Unit in the Los Angeles Region, provided the analyses are representative of the entire volume of material and with the concurrence of the site operator.
- 7. Waste discharged or reclaimed for reuse as soil backfill shall not contain any substance in concentrations toxic to human, animal, plant, or aquatic life.

8. The discharge of wastes shall be to a legal point of disposal or to a site approved by the Executive Officer and in accordance with the provisions of Division 7.5 of the Water Code. For the purposes of these requirements, a legal disposal site is one for which requirements have been established by a California Regional Water Quality Control Board and which is in compliance therewith.

C. PROVISIONS

- 1. A copy of these requirements shall be maintained by the discharger at the proposed site and be available at all times to operating personnel.
- 2. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - (a) Breakdown of waste disposal equipment,
 - (b) Accidents caused by human error or negligence,
 - (c) Other causes such as acts of nature,
 - (d) Facility operations

The discharger must notify this Board by telephone within 24 hours of the incident and confirm it in writing within one week of the telephone notification.

- 3. In accordance with Section 13260 of the California Water Code, the discharger shall file a report of material change with this Regional Board of any material change in the character, location or volume of the discharge.
- 4. The Discharger shall allow the Regional Board or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
 - (a) Enter upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

- (b) Have access to, and copy at reasonable times, any records that are kept under the conditions of this Order;
- (c) Inspect, at reasonable times, any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (d) To photograph, sample, or monitor, at reasonable times, for the purpose of assuring compliance with this Order, or as otherwise authorized by the California Water Code.
- 5. In accordance with Section 13263 of the Water Code, these waste discharge requirements are subject to periodic review and revision by this Regional Board.
- 6. These requirements do not exempt the discharger from compliance with any other laws, regulations, or ordinances which may be applicable, they do not legalize this soil disposal or similar waste and they leave unaffected any further restraints on those facilities which may be contained in other status or contained by other regulatory agencies.

D. EXPIRATION

These Waste Discharge Requirements regulating a specific short term soil or similar waste discharge expire 90 days after the Executive Officer has determined this Order is applicable to the specific project.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on July 22, 1991.

ROBERT P. GHIRELLI, D.Env.

Executive Officer

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INTEGRATED

Environmental Services, Inc. 3990 Westerly Place, Suite 210 Newport Beach, CA 92660

Phone: (949) 852-9050

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FAX TRANSMISSION COVER SHEET

DATE:

August 9, 1999

TO:

Augustine Anijielo

FAX:

(213) 576-6717

PHONE:

(213) 576-6812

COMPANY: Regional Water Quality Control Board

FROM:

Joann P. Ornelas

RE:

Boeing C-6 Facility - Parcel D Arsenic-Impacted Soil Excavation Status

NUMBER OF PAGES (INCLUDING COVER SHEET):

Mario Stavale, Boeing (562) 627-3109

Jeff Goodman, Bayley (310) 224-4784

MESSAGE:

Augustine,

The attached memo summarizes the arsenic-impacted soil excavation activities conducted to date at the Boeing C-6 facility, Parcel D.

Please call me if you have questions.

Thank you

IF YOU DO NOT RECEIVE A COMPLETE AND/OR LEGIBLE COPY OF THIS FAX PLEASE NOTIFY US AT THE ABOVE NUMBER.

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Memo

To: Augustine Anijielo, RWQCB

From: Joann P. Omelas

cc: Mario Stavale, Boeing

Michael Young, IESI

Date: August 9, 1999

Re: Boeing C-6 Facility, Parcel D Excavation - Arsenic-Impacted Soil

On Monday, July 19, 1999, excavation activities began in Parcel D to remove the arsenic-impacted soil identified during the Site Investigation conducted in June 1999. The impacted area measured approximately 400 by 300 feet, to a depth of 1.5 feet. Excavation activities were conducted in accordance with the approved Parcel D Excavation Plan, dated July 9, 1999.

Excavation activities were performed in a phased approach beginning with isolated excavations and an overall area excavation. Within the arsenic-impacted area, 13 locations were identified as requiring isolated excavations either because: 1) the arsenic concentration exceeded the total threshold limit concentration (TTLC) of 500 mg/kg or soluble threshold limit concentration (STLC) limit of 5 mg/kg or 2) arsenic was present at a concentration greater than 14 mg/kg at depths below 2 feet below ground surface (bgs).

Upon completion of each isolated excavation, confirmation samples were collected to verify that the concentrations in the remaining soil were below the STLC and TTLC limits and therefore meet the criteria for non-hazardous waste. Samples were collected from the bottom and each side wall. The bottoms were excavated until the arsenic concentrations were below 14 mg/kg and the side walls were excavated to concentrations below the STLC. The concentrations in the side-wall samples only had to be below the STLC during the isolated excavations to minimize the amount of non-RCRA hazardous generated. The remaining soil was removed with the overall removal of the top 1.5 feet (discussed below).

The locations of isolated excavations are presented in Figure 1. Confirmation sampling data for these excavations are summarized in Table 1. Although several of the confirmation sample results exceed 10 times the STLC threshold limit, none were analyzed for STLC because the STLC data collected on 52 samples (refer to the revised Table 2 in WDR Permit Application package) shows that the majority of the samples with concentrations exceeding the STLC limit of 5 mg/kg have TTLC concentrations greater than 200 mg/kg. As a conservative approach, soil exhibiting greater than 100 mg/kg on the side walls and bottoms of the isolated excavation pits were excavated for disposal at the Kettleman Hills Landfill in Kettleman Hills, California.

Arsenic-impacted soil is confined to the top 1.5 feet within the delineated area. Once the isolated excavations were completed and confirmed, excavation of the remaining arsenic-

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impacted soil was conducted. These soils were stockpiled separately for disposal at the Bradley Landfill. These soils will be transported and disposed at the Bradley Landfill in accordance with the Board-approved Waste Discharge Requirements permit, dated July 29, 1999.

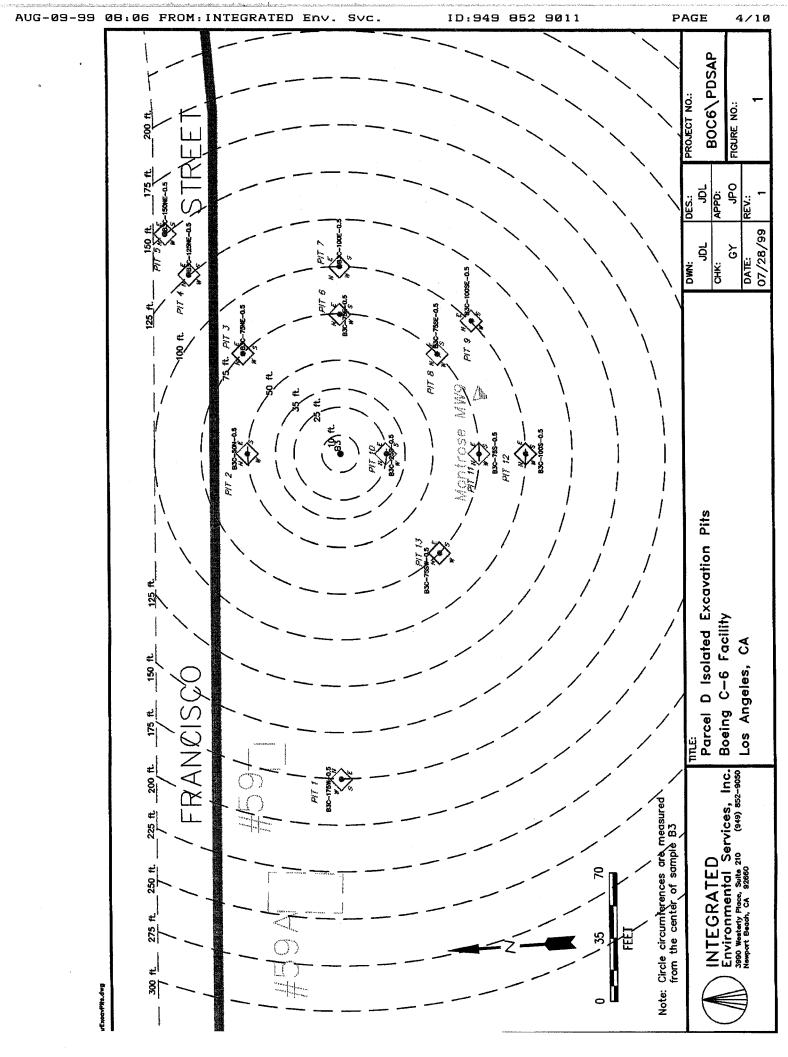
At the completion of the overall excavation (area measuring approximately 400 by 300 feet), a 75 foot grid was placed over the area for confirmation sampling. Samples designated Par D-C1 through C23 and C28 were collected in the grid. Figure 2 shows the approximate locations of these samples and Table 1 presents the analytical results. Confirmation samples exhibiting arsenic concentrations above 14 mg/kg were further delineated and excavated until arsenic concentrations were below 14 mg/kg. Results of the additional excavation and confirmation samples are also presented on Table 1. Surveyed maps showing the overall excavation and additional excavations will be presented in the Site Investigation and Excavation Report.

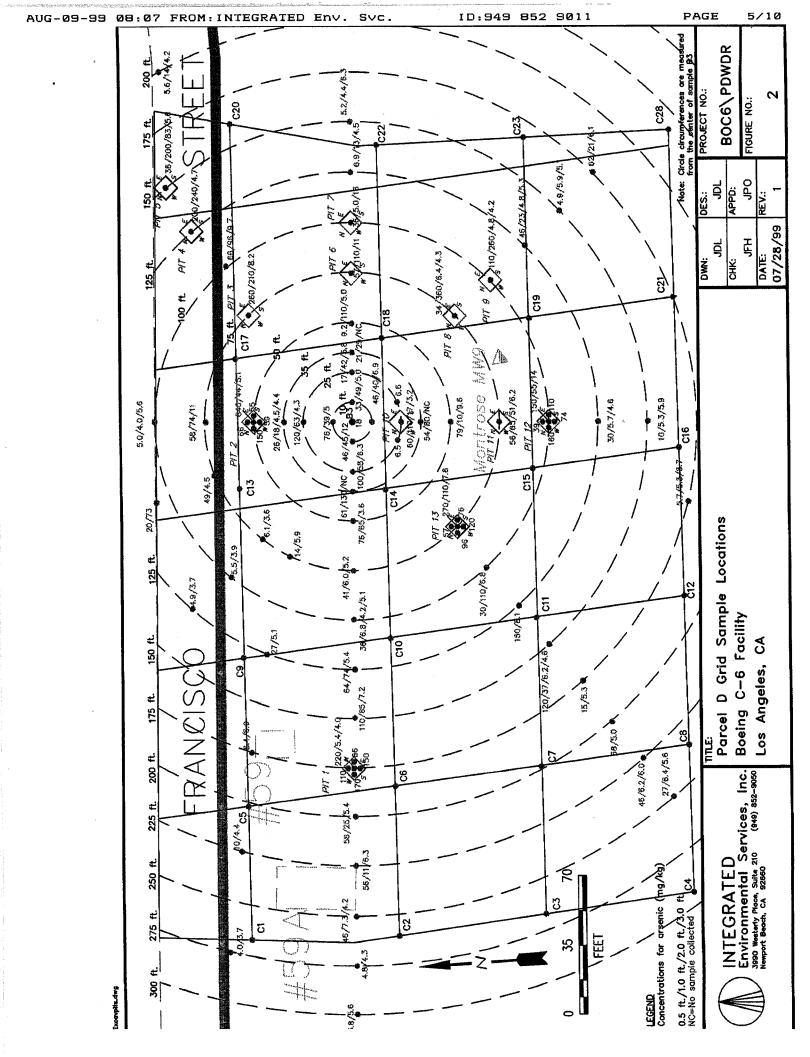
In June 1999, approximately 200 cubic yards of arsenic-impacted soil were over excavated from the northeast and placed in the northwest portion of Parcel D. During the over excavation, arsenic-impacted soil was mixed with approximately 2000 cubic yards of non-impacted soil and placed over an area measuring approximately 300 by 100 feet, to a depth of 1.5 feet. Between July 20 through 23, soil placed in this area was excavated and stockpiled for disposal to the Bradley Landfill. At the completion of the excavation, six confirmation samples were collected to ensure that the arsenic-impacted soil has been removed. Results for these samples indicate arsenic to be present between 4.1 and 5.7 mg/kg (see Table 1).

All sampling points, as well as the perimeters of the excavation pits and area, have been surveyed by a licensed surveyor. These points will be presented in maps within the Site Investigation and Excavation Report to be submitted to the Board.

Please call me at (949) 862-9050, extension 14, or Dr. Young at (949) 795-3839, if you have questions.

Thank you for your assistance.





				Concentrat		
Date	Time		Sample No.	(mg/kg)	Location	Comments
7/16/99	920	Pit 1	Par D-C175W-1	9.5	north wall	No further lateral delineation
7/16/99	920]	Par D-C175W-2	11	east wall	
7/16/99	920		Par D-C175W-3	14	south wall	
7/16/99	925]	Par D-C175W-4	11	west wall	
7/16/99	925		Par D-C175W-5	4.3	bottom	No further vertical delineation
7/16/99	950	Pit 2	Par D-C50N-1	38	north wall	Top 1.5 feet soil will be removed during
7/16/99	950	1	Par D-C50N-2	55	east wall	overall surface excavation. Addit. Confirm.
7/16/99	950		Par D-C50N-3	64	south wall	samples to be collected.
7/16/99	955		Par D-C50N-4	- 50	west wall	
7/16/99	955		Par D-C50N-5	4.3	bottom	No further vertical delineation
7/16/99	1010	Pit 3	Par D-C75NE-1	72	north wall	Top 1.5 feet soil will be removed.
7/16/99	1010	1	Par D-C75NE-2	7.41	east wall	Addit. lateral delineation reg'd.
7/20/99	902		Par D-C75NE-2A	2011	east wall	Addit. 1.0 ft excavated 7/20/99; addit lateral delineation req'd
7/22/99	945]	Par D-C75NE-2B	130	east wall	Addit. 2.0 ft excavated 7/22/99
			NA	NA NA	east wall	Addit. 1.5 ft excavated 7/26/99; overall excavation area 14' by 12' by 1.5'; top 1.5 ft to be removed.
7/16/99	1010		Par D-C75NE-3		south wall	Addit. lateral delineation reg'd.
7/20/99	858		Par D-C75NE-3A	215	south wall	Addit. 0.5 ft excavated 7/20/99; addit lateral delineation req'd
7/22/99	942		Par D-C75NE-3B	150	south wall	Addit. 2 ft excavated 7/22/99
			NA	NA	south wall	Addit. 1.5 ft excavated 7/26/99; overall excavation area 14' by 12' by 1.5'; top 1.5 ft to be removed.
7/16/99	1015]	Par D-C75NE-4		west wall	Addit. lateral delineation req'd.
7/20/99	900		Par D-C75NE-4A		west wall	Addit. 1.0 ft excavated 7/20/99; addit lateral delineation req'd
7/22/99	940]	Par D-C75NE-4B	69	west wall	Addit. 2.0 ft excavated 7/22/99
7/16/99	1015		Par D-C75NE-5	7.5	bottom	No further vertical delineation
7/16/99	1030	Pit 4	Par D-C125NE-1	8.9	north wall	Top 1.5 feet soil will be removed during
7/16/99	1030]	Par D-C125NE-2	16	east wall	overall surface excavation. Addit. Confirm.
7/16/99	1030		Par D-C125NE-3	67	south wall	samples to be collected.
7/16/99	1035]	Par D-C125NE-4	31	west wall	
7/16/99	1035		Par D-C125NE-5	8.4	bottom	No further vertical delineation
7/16/99	1045	Pit 5	Par D-C150NE-1	20	north wall	Top 1.5 feet soil will be removed during overall
7/16/99	1045		Par D-C150NE-2	19	east wall	surface excavation. Addit, Confirm, samples to be collected.
7/16/99	1045]	Par D-C150NE-3		south wall	Addit. lateral delineation regid.
7/20/99	855		Par D-C150NE-3A	59	south wall	Addit. 0.5 ft excavated 7/20/99; no further lateral delineation, top 1.5 feet to be removed.
7/16/9 9	1050	1	Par D-C150NE-4	42	west wall	See north and east wall comment
7/16/99	1050	1	Par D-C150NE-5	11	bottom	No further vertical delineation

Date	Time		Sample No.	Concentrat. (mg/kg)	Location	Comments
7/16/99	1335	Pit 6	Par D-C-75E-1		north wall	Addit, lateral delineation reg'd.
7/20/99	905		Par D-C75E-1A	33	north wall	Addit. 1.0 ft excavated 7/20/99; no further lateral delineation, top 1.5 feet to be removed.
7/16/99	1335		Par D-C75E-2	62	east wall	Top 1,5 feet soil will be removed during overall surface excevation. Addit, Confirm, samples to be
7/16/99	1335		Par D-C75E-3	49	south wall	collected.
7/16/99	1340	1	Par D-C75E-4	90	west wall	Addit. lateral delineation req'd.
7/20/99	900		Par D-C75E-4A	79	west wall	Addit. 0.5 ft excavated 7/20/99; no further lateral delineation, top 1.5 feet to be removed.
7/16/99	1340	1	Par D-C75E-5	19	bottom	Addit. vertical delineation req'd.
7/20/99	910		Par D-C75E-5A	6.7	bottom	Addit. 0.5 ft excavated 7/20/99; No further vertical delineation
7/16/99	1345	Pit 7	Par D-C100E-1	6.9	north side wall	No further lateral delineation
7/16/99	1345]	Par D-C100E-2	7.1	east side wall	
7/16/99	1345]	Par D-C100E-3	6.4	south side wall	
7/16/99	1350	<u> </u>	Par D-C100E-4	6.4	west sidewall	
7/16/99	1350		Par D-C100E-5	6.1	bottom	No further vertical delineation
7/16/99	825	Pit 8	Par D-C75SE-1	7.5	north wall	No further lateral delineation
7/16/99	825		Par D-C75SE-2		east wall	Addit, lateral delineation req'd.
7/20/99	902		Par D-C75SE-2A	72	east wall	Addit. 1.0 ft excavated 7/20/99; no further lateral delineaiton, top 1.5 feet to be removed.
7/16/99	825		Par D-C75SE-3	6.5	south wall	No further lateral delineation
7/16/99	830]	Par D-C75SE-4	6.5	west wall	
7/16/99	830		Par D-C75SE-5	11	bottom	No further vertical delineation
7/16/99	810	Pit 9	Par D-C100SE-1	5.8	north wall	Top 1.5 feet soil will be removed during
7/16/99	810		Par D-C100SE-2	12	east wall	overall surface excavation. Addit. Confirm.
7/16/99	810		Par D-C100SE-3	15	south wall	
7/16/99	815		Par D-C100SE-4	11	west wall	
7/16/99	815		Par D-C100SE-5	7.2	bottom	No further vertical delineation
7/16/99	1400	Pit 10	Par D-C25S-1	8.9	north wall	Top 1.5 feet soil will be removed during overall surface excavation. Addit. Confirm.
7/16/99	1400	_}	Par D-C25S-2	6.6	east wall	samples to be collected.
7/16/99	1400	_	Par D-C25S-3	16	south wall	
7/16/99	1405	_	Par D-C25S-4	6.1	west wall	
7/16/99	1405		Par D-C25S-5	4.9	bottom	No further vertical delineation
7/16/99	1420	Pit 11	Par D-C75S-1	10	north wall	Top 1.5 feet soil will be removed during overall surface excavation. Addit, Confirm,
7/16/99	1420	4	Par D-C75S-2	8.1	east wall	samples to be collected.
7/16/99	1420	_	Par D-C75S-3	25	south wall	
7/16/99	1425	4	Par D-C75\$-4	78	west wall	No further vertical delineation
7/16/99	1425	15: 15	Par D-C75S-5	6.1	bottom	
7/16/99	840	Pit 12	Par D-C100S-1	6.4	north wall	No further lateral delineation
7/16/99	840	4	Par D-C100S-2	5.9	east wall	
7/16/99	840	4	Par D-C100S-3	8.5	south wall	
7/16/99	845	4	Par D-C100S-4	5.7	west wall	No further vertical delinantian
7/16/99	845		Par D-C100S-5	4.4	bottom	No further vertical delineation

_				Concentrat.		
Date	Time	<u> </u>	Sample No.	(mg/kg)	Location	Comments
7/16/99	855	Pit 13	Par D-C75SW-1	23	north wall	Top 1.5 feet soil will be removed during
7/16/99	855		Par D-C75SW-2	42	east wall	overall surface excavation. Addit. Confirm.
7/16/99	855]	Par D-C75SW-3	17	south wall	samples to be collected.
7/16/99	900]	Par D-C75SW-4	48	west wall	
7/16/99	900		Par D-C75SW-5	7.3	bottom	No further vertical delineation
7/16/99	952		Par D-WNW75-0.5	14	west-west-north at 75	No further excavation req'd
	955]	Par D-WNW75-1.0	5.9	n tr	No further excavation req'd
7/16/99	1001		Par D-WNW125-0.5	27	west-west-north at 125	Top 1.5 feet soil will be removed during overall surface excavation. Addit. Confirm. samples to be collected.
	1004]	Par D-WNW125-1.0	5.1	15 re	No further excavation req'd
7/16/99	1014]	Par D-WNW175-0.5	8.4	west-west-north at 175	No further excavation req'd
	1017		Par D-WNW175-1.0	6	. п у	No further excavation req'd
7/16/99	1022]	Par D-WNW225-0.5	10	west-west-north at 225	No further excavation req'd
	1025]	Par D-WNW225-1.0	4.4	15 19	No further excavation req'd
7/16/99	1122]	Par D-WNW275-0.5	4	west-west-north at 275	No further excavation req'd
	1125		Par D-WNW275-1.0	3.7	11 19	No further excavation req'd
7/16/99	1332		Par D-NNW75-0.5	49	north-north-west at 75	Top 1.5 feet soil will be removed during overall surface excavation. Addit. Confirm. samples to be collected.
7/16/99	1335]	Par D-NNW75-1.0	4.5	D U	No further excavation req'd
7/16/99	1347]	Par D-NNW125-0.5	20	north-north-west at 100	Top 1.5 feet soil will be removed during
7/16/99	1353		Par D-NNW125-1.0	73	41 24	overall surface excavation. Addit. Confirm. samples to be collected.
7/27/99	1320		Par D-C1	8.7	northwest (west border)	No further excavation req'd
7/27/99	1335]	Par D-C2	3.8	west border	No further excavation req'd
7/27/99	1350]	Par D-C3	3.9	west border	No further excavation req'd
7/27/99	1355		Par D-C4	4.9	southwest (west border)	No further excavation req'd
7/27/99	1330		Par D-C5	3.4	northwest (north border)	No further excavation req'd
7/28/99	942		Par D-C6	6.4	central	No further excavation req'd
7/28/99	1325]	Par D-C7	3.7	central	No further excavation req'd
7/28/99	1315		Par D-C8	3.5	southern border	No further excavation req'd
7/29/99	1322		Par D-C9	3.9	north border	No further excavation req'd
7/28/99	955		Par D-C10	53	central	7/30/99, addit 4 in. excavated over area approx. 70 ft by 70 ft around C10
7/30/99	1415	1	Par D-C10A	3.6	central	No further excavation reg'd
7/28/99	1335	1	Par D-C11	24	central	7/30/99, addit 4 in. excavated over
						area approx. 50 ft by 70 ft around C11
7/30/99	1422	1	Par D-C11A	5.2	central	No further excavation req'd
7/28/99	1330	1	Par D-C12	4	south border	No further excavation reg'd
7/29/99	1330		Par D-C13	25	northern border	8/02/99, addit 4 in. excavated over area approx. 20 ft by 35 ft around C13
8/2/99	1423	1	Par D-C13A	4.7	north border	No further excavation reg'd
	,			1	.1	

			Concentrat		
Date	Time	Sample No.	(mg/kg)	Location	Comments
7/28/99	1355	Par D-C14	100	central	7/30/99, addit 1 ft excavated over area approx 70 ft by 70 ft around C14
7/30/99	1410	Par D-C14A	61	central	8/3/99, addit 4 in excavated over area approx 20 ft by 20 ft around C14A
8/3/99	804	Par D-C14B	5	central	No further excavation reg'd
7/28/99	1340	Par D-C15	14	central	No further excavation reg'd
7/28/99	1345	Par D-C16	31	south border	7/30/99, addit 4 in. excavated over area approx. 20 ft by 20 ft around C16
7/30/99	1345	Par D-C16A	3,9	south border	No further excavation reg'd
7/29/99	1335	Par D-C17	4.8	north border	No further excavation reg'd
7/29/99	1340	Par D-C18	27	central	8/02/99, addit 4 in. excavated over area approx. 70 ft by 70 ft around C18
8/2/99	1349	Par D-C18A	4.4	central	No further excavation reg'd
7/29/99	1345	Par D-C19	4.9	central	No further excavation reg'd
7/29/99	1400	Par D-C20	76	northeast corner	8/02/99, addit 4 in. excavated over area approx. 20 ft by 70 ft around C20
8/2/99	1328	Par D-C20A	4,4	northeast corner	No further excavation req'd
7/28/99	1400	Par D-C21	8.6	south border	No further excavation req'd
7/29/99	1355	Par D-C22	9.9	east border	No further excavation req'd
7/29/99	1350	Par D-C23	5.5	east border	No further excavation reg'd
7/30/99	1405	Par D-C24	4.5	northwest Par D-C14	No further excavation req'd
7/30/99	1400	Par D-C25	4.9	northeast Par D-C14	No further excavation req'd
7/30/99	1355	Par D-C26	3,7	southeast Par D-C26	No further excavation req'd
7/30/99	1425	Par D-C27	3.9	south Par D-C11	No further excavation reg'd
7/28/99	1405	Par D-C28	5.6	southeast comer	No further excavation req'd
7/30/99	1420	Par D-C29	4.9	west Par D-C10	No further excavation req'd
7/30/99	1335	Par D-C30	3.8	north Par D-C16	No further excavation req'd
7/30/99	1320	Par D-C31	5	east Par D-C16	No further excavation req'd
7/30/99	1325	Par D-C32	4.4	south Par D-C16	No further excavation req'd
7/30/99	1330	Par D-C33	3.6 20	west Par D-C16 least of Par D-C13	No further excavation req'd Addit lateral delineation req'd
8/2/9 9 8/4/99	843	Par D-C34 Par D-C34A	4.4	east of Par D-C13	8/04/99, addit 4 in. excavated over area approx. 15 ft by 15 ft around C34
8/2/99	1420	Par D-C35	6.4	south of Par D-C13	No further excavation req'd
8/2/99	1416	Par D-C36	3.8	west of Par D-C13	No further excavation reg'd
8/2/99	1413	Par D-C37	4.7	north of Par D-C13	No further excavation req'd
8/2/99	1346	Par D-C38	6.8	east of Par D-C18	No further excavation reg'd
8/2/99	1353	Par D-C39	7	south of Par D-C18	No further excavation req'd
8/2/99	1355	Par D-C40	5.7	west of Par D-C18	No further excavation req'd
8/2/99	1359	Par D-C41	7.8	north of Par D-C18	No further excavation req'd
8/2/99	1324	Par D-C42		east of Par D-C20	Addit lateral and vertical req'd;

			Concentrat.			
Date	Time	Sample No.	(mg/kg)	Location	Comments	
8/4/99	855	Par D-C42A	3.7	east of Par D-C20	Addit 20 ft by 10 ft by 2 ft excavated around C42	
8/2/99	1336	Par D-C43	4.3	south of Par D-C20	No further excavation req'd	
8/2/99	1340	Par D-C44	4.7	west of Par D-C20	No further excavation req'd	
8/2/99	1333	Par D-C45	3.7	north of Par D-C20	No further excavation req'd	
8/3/99	759	Par D-C46	4.2	east of Par D-14A	No further excavation req'd	
8/3/99	808	Par D-C47	4.1	south of Par D-14A	No further excavation req'd	
8/3/99	812	Par D-C48	4.2	west of Par D-14A	No further excavation req'd	
8/3/99	815	Par D-C49	3.8	north of Par D-14A	No further excavation req'd	
8/4/99	846	Par D-C50	3.9	southwest of Par D-C34	No further excavation req'd	
8/4/99	859	Par D-C51	4.8	east of Par D-C42	No further excavation req'd	
8/4/99	903	Par D-C52	4.6	south of Par D-42	No further excavation reg'd	
7/23/99	1140	ParDo-C1	4.1	west end	Over-excavated area between borings B1	
7/22/99	1525	ParDo-C2	5.2	central	and B2 where arsenic-impacted soils were	
7/22/99	1528	ParDo-C3	5.7	central	deposited; deposited soils were removed to native where confirmation samples were	
7/22/99	1530	ParDo-C4	4.9	central	collected.	
7/22/99	1535	ParDo-C5	5.3	east end		
7/21/99	1010	Par D-BS1	14		Road base material	

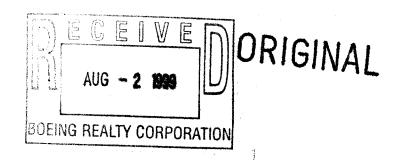
Notes:

Boldface indicates concentration above HBRG of 14 mg/kg, but within range for disposal at Bradley Landfill. Shading indicates concentration is above the range for disposal at Bradley. Additional excavation conducted and soil to be disposed at Kettlernan Hills.

CONFIRMATION LETTER

July 29, 1999

CONTRACT ADMINISTRATOR BOEING REALTY CORP 4060 N LAKEWOOD BLVD FL 6 LONG BEACH, CA 90808-1700



Re: Confirmation Number 4934031

Attention: CONTRACT ADMINISTRATOR

We are pleased to confirm CWM's approval of your waste material as described below. The attached profile for the waste materials was prepared by CWM based upon information provided by you. It is important that no changes be made to the profile without CWM's consent. If the profile meets with your approval, please call 1- 800-222-2964 to schedule shipment of your waste materials.

CWM Profile Number:

EA3526 KHF

Approved Mgmt. Facility:

KETTLEMAN HILLS FACILITY

Waste Name:

ARSENIC CONTAMINATED SOIL

Disposal Method:

SECURE LANDFILL

Pricing Conditions:

Secure Landfill

Disposal Price:

Special Pricing Effective 7/1/99

\$40.00/Ton

Add 10% Kings County Tax

Add B.O.E. Tax - Hazardous (Clean-Up)

Transportation Price:

**If CWM Arranges Transportation:

*Trips less than 400 miles (one way)

Drums:

1-10 Drums \$33.00/Drum 11-40 Drums \$28.00/Drum

41 + Drums To be quoted at truck load rates.

Stop time for 1-10 drums should not exceed 30 minutes. For pick ups of > 10 drums stop time

should not exceed 60 minutes.

The transportation charge for overpacks will be

\$50.00 per drum.

Bulk:

\$650.00/Load

July 29, 1999

Re: Confirmation Number 4934031

Container Drop Off Fee: Current Transportation

Rate Less 2 Hours

Container Rental: \$225.00 month/flat fee

Liners: \$60.00/liner

Demurrage:

\$70.00/Hour after the first hour

Additional Fees:

Jumbo Bags & Boxes 1.5 x Bulk Price Above

Pallets 4 x Drum Price Above

Containers > 55 Gallons 1.5 x Drum Price Above Incidental Liquid in Bulk Solid Loads \$400.00/Load

Incidental Liquid in Drums \$220.00/Drum

Leaking Bulk Loads/Drums \$200.00/Load or Drum Non-ring top containers solids requiring treatment

\$25.00/drum.

If overpacks are required they will be provided for an additional charge of \$130.00/drum. Truck washouts will be billed at \$0.90 per gallon

with a \$250.00 minimum. Priority Approvals \$300.00

Profile Expiration Date:

7/27/00

Special Conditions:

MUST BE SCHEDULED (CALL 1-800-222-2964) NO FREE LIQUIDS OR VOID SPACE IN DRUMS

NO RCRA WASTE MAY BE SHIPPED ON THIS PROFILE. MUST NOT INCLUDE BIODEGRADABLE ABSORBENTS

Applicable state and local taxes are not included in these disposal prices. All wastes are priced as profiled, invoiced as actually received. Invoices shall be paid no later than thirty (30) days from the date of receipt. All terms are governed by the Agreement previously executed between our companies. The prices quoted above are subject to change by CWM upon thirty (30) days' prior written notice to you unless otherwise specifically provided or per the terms of our Agreement. If we have not previously concluded a Service Agreement with your company, one is enclosed for your convenience. Please sign and return it to us as soon as possible. Also, if 'Signature on File' does not appear on the signature line of the Waste Profile Sheet, please sign and return it before scheduling your material.

July 29, 1999

Re: Confirmation Number 4934031

If you have any questions or would like to make changes to the profile, please contact your representative. Thank you for this opportunity to be of service.

Edward Waldynski/Tech. Manager

CONTRACT ADMINISTRATOR BOEING REALTY CORP

Chemical Waste Management, Inc

GENERATOR'S WASTE PROFILE SHEET

Profile # KHF EA3526

(_) Check here if this is a Recertification LOCATION OF	ORIGINAL KETTLEMAN HIL	LIS FACILITY	
ENERAL INFORMATION Generator Name: BOEING REALTY CORP	Generator USEPA ID:	CAD086510005	
2. Generator Address: 19503 NORMANDIE AVE		BOEING REALTY CORF	•
- delicited Address Manager Ma	(_) Same	4060 N LAKEWOOD BL	.VD FL 6
TORRANCE CA 90502-1109			
3. Technical Contact/Phone: MARIO STAVALE 562/627-3014		LONG BEACH	CA 90808-1700
A. Alternate Contact/Phone: JOHN MORASCO 714/392-1975	Billing Contact/Phone: <u>ACCO</u>	UNTS PAYABLE	562/627-3014
PROPERTIES AND COMPOSITION 5. Process Generating Waste: REMEDIATION AND DEVELOPMENT - FO	RMER STORATE FACILITY	1848_12	
6. Waste Name: ARSENIC CONTAMINATED SOIL			
7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes B. Identify ALL USEPA listed and characteristic waste code	(_) No (<u>X</u>) numbers (D,F,K,P,U): _	1.	· .
	s	tate Waste Codes:	511
8. Physical State @ 70F: A. Solid(<u>X</u>) Liquid(_) Both(_) Gas(_)) B. Single Layer (X) M	Hultilayer (_) C. F	ree liq. range <u>0</u> to <u>0</u> %
9A. pH: Range or Not applicable (\underline{X}) B. Strong	g Odor (_);describe		
10.Liquid Flash Point: < 73F (_) 73-99F (_) 100-139F (_) 1	140-199F () >= 200F (() N.A. (X) Clos	ed Cup (X) Open Cup ()
11. CHEMICAL COMPOSITION: List ALL constituents (incl. halog	genated organics) prese		ation and forward analysis
SOIL	99_1	to 100 %	
ARSENIC		to 3.4 MG/L TC	
		to	
TOTAL COMPOSITION (MUST EQUAL OR EXCEED 100%):		100.000000	
12. OTHER: PCBs if yes, concentration ppm, Radioactive (_) Benzene if yes, concentration _ Carcinogen (_) Infectious (_) Other	PCBs regulated by 40 C	FR 761 (_). Pyroph SHAP (<u>N</u>) Shock Sens	oric (_) Explosive (_) sitive (_) Oxidizer (_)
13. If waste subject to the land ban & meets treatment stands	ards, check here: _ &	supply analytical r	results where applicable.
SHIPPING INFORMATION 14. PACKAGING: Bulk Solid (X) Bulk Liquid (_) Drum (_) Typ	e/Size: END DUMP	Other	
15. ANTICIPATED ANNUAL VOLUME: 20 Units: CUBIC YARD	Shipping	Frequency: ONE TIM	<u>1E</u>
SAMPLING INFORMATION 16a. Sample source (drum, lagoon, pond, tank, vat, etc.):		Sample	e Tracking Number: 4934031
Date Sampled: Sampler's Name/Company:			
16b. Generator's Agent Supervising Sampling:	1		equired (See instructions.
GENERATOR'S CERTIFICATION I hereby certify that all information submitted in this and this waste. Any sample submitted is representative as define relevant information regarding known or suspected hazards in CWM to obtain a sample from any waste shipment for purposes	ed in 40 CFR 261 - Appe n the possession of the	ndix I or by using	an equivalent method. All
Signature on original profile EA3526 S.	MARIO STAVALE		7/22/9
Signature	N	lame and Title	Date

18	Thie	ie	_	Nonwastewater.
IO.	Inis	18	а	NOTIWAS LEWATET .

19. If this waste is subj	ect to any California	list	restrictions	enter the	letter from below	(either A,	B.1 or	B.2) next	: to
each restriction that		DCDo	Anid	Motale	Cyanides				

20. Identify ALL Characteristic and Listed USEPA hazardous waste numbers that apply (as defined by 40 CFR 261). For each waste number, identify the subcategory (as applicable, check none, or write in the description from 40 CFR 268.41, 268.42, and 268.43).

REF	A. US EPA HAZARDOUS WASTE CODE(S)	B. SUBCATEGORY Enter the subcategory description If not applicable, simply check none	PERFORN BASE Check as a	ICABLE TREATMENT STANDARDS SPECIFIED TECHNOLOGY: If applicable enter the 40 CFR 268.42 table 1 treatment code(s)	D. HOW MUST THE WASTE BE MANAGED? Enter letter from below		
	-	DESCRIPTION N	ONE	268.41(a)	268.43(a)	268.42	
1_1							
2							
3		·					
4							
5						- 1	
6						waa in tala	
7						The state of the s	
8	3						
9						11	
10)						
							<u> </u>
							\

Management under the land disposal restrictions:

- A. RESTRICTED WASTE REQUIRES TREATMENT
- **B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS**
- B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)
- B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
- C. RESTRICTED WASTE SUBJECT TO A VARIANCE

and physical appearance SOIL

- D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

	E. NOT CURRE	NITEA SORPECT TO	LAND DISPOSAL F	KESIKICIIONS			7		
21.	Is this waste	a soil or debri	is? No: _	Yes, Soil: X	Yes, Debris: _				
22.	Specific Grav	ity Range:	_ to						
23.	Indicate the	range of each:		Units					
	Cyanides: _	None	to		Type (free, tot	al, amenable,	etc.) _	 	_
	Cyanides: _	None	to		Type (free, tot	al, amenable,	etc.) _	 	_
	Sulfides: _	None	to		Туре		_		
	Optional Phenolics: _	None	to	· ·	*				
24.	Identify the	waste color <u>VAR</u>	IES	, , [OT physical stat	e <u>Solid</u>		 ,	

25. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS OR INCINERATION	26. RECLAMATION, FUELS or INCINERATION PARAMETERS (Provide if information is available)
TOTAL	RANGE
Beryllium as Be	ppm A. Heat Value (Btu/lb):
Potassium as K	ppm B. Water:
Sodium as Na	ppm C. Viscosity (cps): a F _ 100 F _ 150 F
Bromine as Br	% D. Ash: %
Chlorine as Cl	% E. Settleable solids: %
Fluorine as F	% F. Vapor Pressure @ STP (mm/Hg):
Sulfur as S	% G. Is this waste a pumpable liquid? Yes _ No _
	H. Can this waste be heated to improve flow? Yes _ No _
	I. Is this waste soluble in water? Yes _ No _
	J. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? Yes _ No _
A. Is this a DOT Hazardous Material? Yes _ No X B. Proper Shipping Name	ARSENIC) Non-Regulated Mat. I.D Packing Group:
G. Labels Required	
28. SPECIAL HANDLING INFORMATION	
_ Material Safety Data Sheets Attached	
29. OTHER INFORMATION	
GENERATOR SUBMITTED ANALYTICAL ATTACHED.	

30. CHEMICAL WASTE MANAGEMENT CERTIFICATION

Chemical Waste Management, Inc. has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

31. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

METALS	TCLP Information: Check only ONE for each constituent Use units: ppm, mg/l				TCLP Data	TCA or TOTAL Use units: ppm, mg/l, mg/kg or percent				
	Less Than	TC Regulated Level	Equal or More	Waste No.	TCLP Actual	Less Than	liforr Regul Lev		Equal or More	Actual
Arsenic as As	х	5.0 mg/l		D004			500	mg/l		
Barium as Ba	х	100.0 mg/l		D005						
Cadmium as Cd	х	1.0 mg/l		D006		<u> </u>	100	mg/l	ļ	
Chromium tot Cr	х	5.0 mg/l		D007		-				
Lead as Pb	х	5.0 mg/l		B00d			500	mg/l		
Mercury as Hg	х	.2 mg/l		D009			20	mg/l		
Selenium as Se	х	1.0 mg/l		D010			100	mg/l		
Silver as Ag	х	5.0 mg/l		D011		-				
Nickel as Ni	ļ						134	mg/l		
Thallium as Tl						_	130	mg/l	<u> </u>	
Chromium Hex						-	500	mg/l		
Antimony						_		. 4.44		
Beryllium	ļ								-	
Copper	-		<u> </u>		-					
Vanadium									-	
Zinc						 			 	}
									-	
						-				
-			 			+				
	1						<u></u>			

32. OTHER HAZARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

DRGANICS	Check of	TCLP Information	tion: ach cor	nstituent	TCLP Data	TCA or TOTAL Use units: ppm, mg/l or %
	Less Than	Regulated Level	Equal or More	Waste No.	TCLP Analytical Test Results Use units: ppm or mg/l	
Benzene	х	0.5 mg/l		D018		
Carbon Tetrachloride	x	0.5 mg/l		D019		
Chlordane	x	0.03 mg/l		D020		
Chlorobenzene	х	100.0 mg/l	ļ	D021		
Chloroform	X_	6.0 mg/l		D022		
m-Cresol	х	200 mg/l		D024		
o-Cresol	x	200.0 mg/l	<u> </u>	D023		
p-Cresol	<u> x</u>	200.0 mg/l	<u> </u>	D025		
Cresol	<u> </u>	200.0 mg/l		D026		
2,4-D	x	10.0 mg/l		D016		
1,4 Dichlorobenzene	x	7.5 mg/l		D027		
1,2-Dichloroethane	<u> </u>	0.5 mg/l		D028		
1,1-Dichloroethylene	Х	0.7 mg/l		D029		146
2,4-Dinitrotoluene	х	0.13 mg/l		D030		
Endrin	<u> </u>	.02 mg/l		D012		
Heptachlor, & Hydroxide	x	0.008 mg/L	1	D031		
Hexachloro-1,3 Butadiene	х	0.5 mg/l		D033		
Hexachlorobenzene	х	0.13 mg/l		D032		
Hexachloroethane	х	3.0 mg/l	-	D034		
Lindane	х	0.4 mg/l		D013		
Methoxychlor	x	10.0 mg/l	-	D014		
Methyl Ethyl Ketone	x	200.0 mg/l	ļ	D035		
Nitrobenzene	х_	2.0 mg/l		D036		
Pentachlorophenol	х	100.0 mg/l		D037		
Pyridine	х	5.0 mg/l	-	D038		
Tetrachloroethylene	х	0.7 mg/l	-	D039		
Toxaphene	х	0.5 mg/l		D015_		
2,4,5-TP Silvex	<u> </u>	1.0 mg/l	_	D017		
Trichloroethylene	х	0.5 mg/l	-	D040		
2,4,5-Trichlorophenol	х	400.0 mg/l		D041		
2,4,6-Trichlorophenol	x_	2.0 mg/l		D042		
Vinyl Chloride	x_	0.2 mg/l	-	D043		
			_			

CHEMICAL NASTE MANAGEMENT

35251[©]Old Skyline Road Kettleman City CA 93239 209/386-9711

ORIGINAL

ENVIRONMENTAL SERVICE AGREEMENT

CUSTOMER BILLING ADDRESS	CUSTOMER CONTRACTING ADDRESS (if different from Billing Address)	CUSTOMER SERVICE LOCATION (if different from Billing Address)
BOEING REALTY CORP 4060 N LAKEWOOD BLVD FLOOR 6 LONG BEACH, CA 90808-1700		
Contact Phone: 562-627-3014	Contact Phone:	Contact Phone:
CWM Customer Service: 1-888-543-9646	CWM Contact: Edward Waldynski, Technical Ma	nager

NOTICE: HAVE READ THE ENTIRE AGREEMENT AND ACCEPT THE AGREEMENT IN ITS ENTIRETY, INCLUDING TERMS AND CONDITIONS PRINTED HEREUNDER AND ON THE REVERSE SIDE, AND I HAVE RECEIVED A TRUE COPY THEREOF.

TERMS AND CONDITIONS

This Service Agreement consisting of the terms and conditions set forth below, the Additional Definitions, Terms and conditions set forth on the reverse side hereof, the Profile Sheet and such supplemental contract documents as are described herein (all of the foregoing being collectively referred to as the "Agreement"), is made as of the date shown above by and between the customer named above ("Customer") and Chemical Waste Management. ("Company").

1. ORDERING SERVICES

- a. Customer may from time to time provide CWM with a proposal solicitation, purchase order or other equivalent document requesting particular Service which Customer wishes CWM to perform. Customer shall in any event provide CWM with a Profile Sheet describing all waste materials with respect to which Services will be performed and, when required by CWM, a representative sample of such waste material.
- b. Upon CWM's agreement to perform the particular Services requested by Customer, CWM shall issue to Customer a supplemental contract document in the form of a confirmation describing the scope of the particular Services to be performed by CWM and containing all other terms applicable to CWM's engagement to perform the Services. By (a) shipping its waste materials to CWM in the manner specified in or pursuant to such confirmation; or (b) issuing a notice to proceed to CWM; or (c) authorizing CWM to perform the Services in such other manner as may be agreed by the parties, Customer shall be deemed to have accepted the terms of such confirmation. In no event shall CWM have an obligation to perform particular Services hereunder until the waste materials are accepted by CWM at a Facility. In the event of changes in the scope of Services to be performed, the parties agree to execute a change order reflecting such changes.
- 2. COMPOSITION OF WASTE In the event Customer's waste materials do not conform to the descriptions and specifications stated in the corresponding Profile Sheet, CWM and Customer shall, in good faith, attempt to amend the Profile Sheet and any other pertinent documents and/or correct any improper containerization, marking or labeling to enable CWM to accept such non-conforming waste materials at a Facility. If the parties cannot, within a reasonable time after CWM notifies Customer the waste materials are non-conforming, resolve the same as set forth above, Customer shall make prompt

arrangements for the removal of such non-conforming waste materials from the Facility at which they are located to another lawful place of disposition. Customer agrees to pay CWM its reasonable expenses and charges incurred with respect to Customer's non-conforming waste materials.

- 3. PRICING For Services performed hereunder, Customer shall pay CWM the fee specified in the confirmation to be furnished by CWM to Customer. CWM may at any time, upon not less than 30 days' written notice to Customer increase or decrease any such fee. If waste materials to which such changed fee applies are delivered to CWM, or if Services is performed by CWM, more than 30 days after Customer's receipt of notice of such change, Customer shall be deemed to have accepted such changed fee and the supplemental contract document(s) relating to such Services shall be deemed to have been amended accordingly.
- 4. PAYMENT Payment terms shall be net thirty days from invoice. Customer agrees to pay all taxes, tariffs, fees, surcharges or other charges at any time levied upon or payable with respect to CWM's performance of Services or Customer's waste material. Customer shall reimburse CWM for such taxes, tariffs, fees, surcharges or other charges upon CWM's submission of an invoice stating that the same have been levied or paid. In the event that CWM is required to undertake collection procedures or legal action for collection of past due payment, CWM shall be entitled to recover interest a 1-1/4% per month, collection and court costs, and reasonable attorneys' fees.

ADDITIONAL DEFINITIONS, TERMS AND CONDITIONS

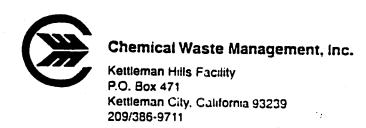
- 5. DÉFINITIONS The following terms used in this Agreement shall have the meanings set forth below:
- a. "Facility" means a storage, treatment and/or disposal facility owned, operated or approved by CWM, and which is permitted to accepted waste materials under applicable laws and regulations.
- b. "Profile Sheet" means a standard CWM Generator's Waste Profile Sheet executed by Customer or Generator (as defined in 40 CFR 260.10).
- c. "Services" means analytical, collection, management, treatment, remediation, transportation, disposal and recycling services and such other services which CWM may perform from time to time with respect to Customer's waste materials.
- 6. CWM WARRANTIES CWM represents and warrants to Customer that:
- a. CWM is generally engaged in the business of performing Services with respect to waste materials and has developed the requisite expertise to perform the particular Services agreed to by Customer and CWM hereunder;
- b. all CWM vehicles and each Facility utilized to perform Services hereunder shall have all permits, licenses, certificates or approvals required under applicable laws and regulations for such Services; and
- c. CWM will perform Services for Customer in a safe and workmanlike manner, and in compliance with all statutes, ordinances, laws, orders, rules and regulations applicable to the Services.
- 7. CUSTOMER WARRANTIES Customer represents and warrants to CWM that:
- a. the description of and specifications pertaining to its waste materials in the Profile Sheet is and at all times will be true and correct in all material respects, and waste materials tendered to CWM will at all times, including, without limitation, at the time of recertification of the waste materials, conform to the description and specifications contained in the Profile Sheet;
- b. Customer has made available all information it has regarding the waste materials and the surface and subsurface conditions in the vicinity of the premises where the Services are to be performed, and if Customer receives information that the waste materials described in a Profile Sheet present, or may present, a hazard or risk to persons or the environment not reasonable disclosed in the Profile Sheet, Customer will promptly report such information to CWM:
- c. in the event Customer is not the Generator of the waste materials (as defined in 40 CFR 260.10), Customer has all necessary authority to enter into this Agreement with respect to the such waste materials;
- d. Customer is under no legal restraint which prohibits the transfer of possession of such waste materials to CWM; and
- e. Customer shall comply with all applicable statutes, ordinances, laws, orders, rules and regulations, and shall provide CWM a safe work environment for Services performed on any premises owned or controlled by Customer.
- 8. EXCUSE OF PERFORMANCE The performance of this Agreement, except for the payment of money relating to Services already performed, may be suspended by either party in the event such performance is prevented, impaired or delayed by any cause beyond the reasonable control of such party. The party whose performance is suspended shall use all reasonable efforts to resume performance promptly.
- TRANSFER OF TITLE CWM shall take title to Customer's waste materials upon completion of loading into CWM's transportation vehicles, or, if transported by Customer, upon acceptance at the Facility.
- 10. CUSTOMER INDEMNIFICATION Customer agrees to indemnify and save harmless CWM and its officers, directors, employees, agents and contractors from and against any and all liabilities, losses, penalties, fines claims, costs and expenses incidental thereto (including cost of defense, settlement, and reasonable attorneys' fees), which any or all of them may hereafter suffer, incur, be responsible for or pay out as a result of bodily injuries (including death), property damage, contamination of or adverse effects on the environment, or any violation or alleged violation of statutes, ordinances, laws, orders, rules or regulations, to the extent caused by Customer's breach of this Agreement, or by any negligent act, negligent omission or willful misconduct of customer or its employees, agents or contractors in the performance of this Agreement.
- 11. CWM INDEMNIFICATION CWM agrees to indemnify and save harmless Customer and its officers, directors, employees, agents and contractors from and against any and all liabilities, losses, penalties, fines, claims, costs and

expenses incidental thereto (including costs of defense, settlement, and reasonable attorneys' fees), which any or all of them may hereafter suffer, incur, be responsible for or pay out as a result of bodily injuries (including death), property damage, contamination of or adverse effects on the environment, or any violation or alleged violation of statutes, ordinances, laws, orders, rules, or regulations, (a) to the extent caused by CWM;s breach of this Agreement, or by any negligent act, negligent omission or willful misconduct of CWM or its employees in the performance of this Agreement, or (b) arising out of CWM's treatment or disposal under this Agreement of Customer's conforming waste materials at a treatment or disposal facility owned and operated by CWM or its affiliates.

- 12. NO CONSEQUENTIAL DAMAGES IN NO EVENT SHALL EITHER PARTY BE RESPONSIBLE TO THE OTHER FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT, WHETHER BASED IN CONTRACT, TORT, STRICT LIABILITY, STATUTE, OR OTHERWISE.
- 13. INSURANCE CWM shall procure and maintain throughout the term of this Agreement liability insurance covering its activities under this Agreement in at least such amount(s) as are required by applicable laws and regulations. CWM shall provide a standard certificate of insurance to Customer evidencing such coverages upon request.
- 14. TERM Either party may terminate this Agreement upon no less than 30 days' written notice.

15. MISCELLANEOUS

- a. If any portion of this Agreement is determined by a court of competent jurisdiction to be illegal, invalid or unenforceable, the same shall not affect the legality, validity or enforceability of the Agreement as a whole or of any portion thereof not so adjudged.
- b. Any notice to be given hereunder shall be in writing (including, without limitation, by facsimile transmission) and sent to the address of the other party (in the case of the Customer, its contracting address) as set forth herein or to an address subsequently designated by the other.
- c. This Agreement constitutes the entire agreement of the parties relating to the subject matter hereof and supersedes all previous agreements, discussions, representations and correspondence between the parties. It is understood and agreed that no agreement, guarantee, warranty or duty, express or implied, not expressed herein shall limit or qualify the terms of this Agreement.
- d. This Agreement may only be amended in a writing signed by both of the parties.
- e. Any waiver by either party of any provisions or conditions of this Agreement shall not be construed or deemed to be a waiver of any other provisions or conditions of this Agreement, nor a waiver of a subsequent breach of the same provision or condition, unless the party sought to have waived has expressly so stated in writing.
- f. This Agreement shall be governed by the laws of the State of Illinois, without regard to conflicts of laws provisions.
- 16. PARTIES BOUND The parties acknowledge that may conduct their respective business operations through other entities which they directly, or indirectly through one or more intermediaries, control and therefore agree to cause such other entities to abide by the terms of this Agreement as if they were parties hereto to the extent necessary to carry out the purposes of this Agreement. Further, the the parties shall be entitled to cause their respective obligations hereunder to be satisfied, and to cause their respective benefits hereunder to be received, by such other entities. Subject to the foregoing, neither party shall assign this Agreement without the prior written consent of the other party.
- 17. CONFLICT IN FORMS In th event of a conflict between the terms set forth herein and any supplemental contract documents herein contemplated, the terms set forth herin shall govern. Notwithstanding the preceding sentence, in the event of a conflict between Paragraph 3 hereof and any such supplemental contract document issued by CWM, such supplemental contract document shall govern. The preprinted terms and conditions appearing on any of Customer's purchase orders or other from order documents shall be null and void.



Dear Customer:

Please review the enclosed documents carefully, and notify us immediately of any discrepancies or updates.

If the enclosed package meets with your approval, please sign, keep a copy for your records, and return all of the indicated documents.

- () Waste Profile (original Generator signature required unless signature authorization had been obtained and is on file with CWMI)
- (V) The Confirmation Letter(s)
- The Environmental Service Agreement(s)

After review and signature of the above documents. Please return to:

Chemical Waste Management, Inc. 35251 Old Skyline Road P.O. Box 471 Kettleman City, CA 93239-0471 Attn.: Contract Administrator

Please be aware we need to have all documents signed and returned before scheduling a pick-up or delivery of your waste(s).

Sincerely,

Kettleman Hills Contract Department Chemical Waste Management, Inc.

Enciosures